

Weekly Radio Guide
WITH THIS ISSUE OF THE
POST-DISPATCH

(Copyright, 1925)



U.S. ENTRY
INTO WORLD
COURT URGED
BY COOLIDGE

President Says It Is Next
Move America Should
Take Toward Outlawing
War.

FAVORS MORE LIGHT
ON DIPLOMACY

Executive at White House
Addresses Delegates to
Conference on Causes
and Cure of War.

By the Associated Press.

WASHINGTON, Jan. 24.—The administration's stand in favor of American participation in the world court was reaffirmed today by President Coolidge in an address at the White House to a delegation attending the national conference on the causes and cure of war.

This step, the President characterized as the next move that should be taken by the United States toward outlawing war. He suggested also that the nation and the world should "turn the light of war information and better understanding upon the problems of diplomacy."

Meantime, the President declared, the United States would in the interest of peace continue its readiness to associate itself with any measure that would tend to maintain security, but "should avoid the danger of a super-government."

Lesson of Last War.

"If the lesson of this last and greatest war shall be lost, then, indeed, will this experience have been almost, in vain," said Mr. Coolidge. "It is for the generation which saw and survived to devise measures of prevention. If we fall in this, we shall deserve all the disaster which will surely be visited upon us because of our failure."

"I believe that, just as the armament conference was a timely and convincing co-operation on the political side, so the Dawes plan was a similarly timely and effective effort for rehabilitation on the economic side."

"I believe that the next step which we may well take is the way of participation in the permanent court of international justice. I believe that with our adherence to that tribunal, for which I earnestly hope, it will become one medium in which may gradually be precipitated and crystallized a body of international law and procedure which, by avoiding the dangers that would attend the establishment of a super-government, will ultimately commend the respect and approbation of the world's public opinion and the co-operation of the nations."

Faith in Public Opinion.

"I am convinced that if our civilization is worthy of its name, then public force is not the only authority which may enforce an anti-war policy. I feel strongly that public opinion, based on proper information working through agencies that the common man may see and understand, may be made the ultimate authority among the nations."

SETS RECORD FOR PLANE GLIDE

Frenchman Aloft Two Hours 26
Minutes With Propeller.

SAINT-REMY-DE PROVENCE, France, Jan. 24.—Lieut. Thorst, the French aviator, carrying a passenger in a regular army airplane with the propeller locked and sealed, remained aloft two hours and 26 minutes today. This breaks the record for motorless flight with a passenger, which was established by Lieut. Thoret, at Sétif, Algeria, last year, by more than one hour.

JAPANESE VOLCANO IN ERUPTION

TOKIO, Jan. 24.—Shiranu-San, one of the highest peaks of the Haku-ni range, 80 miles north of Tokio, was reported in active eruption yesterday, a huge column of smoke being emitted. Today a heavy explosion and loud rumbling occurred while dense ash showers continued over the surrounding area.

To Unveil Wilson Memorial.

WASHINGTON, Jan. 24.—President Coolidge will attend tomorrow the unveiling of memorial tablet to Woodrow Wilson at the Central Presbyterian Church, of which Mr. Wilson was a member.

\$52,150,000 Army Bill Passed.

WASHINGTON, Jan. 24.—The annual army supply bill, carrying \$52,150,000, was passed today by the Senate.

Order Your Copy Now

ST. LOUIS POST-DISPATCH

The Only Evening Paper in St. Louis With the Associated Press News Service

VOL. 77. NO. 139.

ST. LOUIS, SATURDAY EVENING, JANUARY 24, 1925—16 PAGES AND RADIO SECTION.

FINAL
EDITION
(Complete Market Reports)

PRICE 2 CENTS

PARTLY CLOUDY TONIGHT,
SUNDAY WILL BE COLDER

THE TEMPERATURES.

1 a. m.	31	9 a. m.	38
2 a. m.	30	10 a. m.	40
3 a. m.	29	11 a. m.	43
4 a. m.	28	Noon	47
5 a. m.	27	1 p. m.	50
6 a. m.	26	2 p. m.	53
7 a. m.	25	3 p. m.	54
8 a. m.	24		

Highest yesterday 55 at 4 p. m.; lowest 21 at 7:30 a. m.

CAN'T KEEP
A GOOD SUN
DOWN.

Official forecast for St. Louis and vicinity: Partly cloudy to-night and Sunday. Colder Sunday. The lowest temperature tonight will be about 32.

Missouri: Some-what unsettled to-night; colder in west and north portions; Sunday generally fair and colder.

Cloudy and un-
settled tonight; warmer in south-
east portion; Sunday generally fair and colder.

Sun rises at 7:13 a. m.; sets at 5:13. Stage of the Mississippi River at St. Louis: 11.1 feet at 7 a. m.; no change.

Week's Weather Outlook.

By the Associated Press.

WASHINGTON, Jan. 24.—Weather outlook for the week be-
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pi and Lower Missouri Valley—
Snows or rains toward middle of
week; cold at beginning; moderat-
ing about middle and cold again
latter half.

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Order Your Copy Now

Continued on Page 2, Column 5.

GIVES \$1000 TO START PENSION FUND FOR POLICE

F. C. McDonald Sends Check to President Brockman to Become Nucleus of Benefit for Officers.

GIFT CONDITIONAL ON RAISING \$500,000

Sends Letter in Which He Points Out Issue Should Be Placed Before Citizens and Business Men.

F. C. McDonald, 210 North Skinner road, an automobile dealer, has given a check for \$1000 to President Brockman of the Police Board to become a nucleus of a citizens' police pension fund to retire aged officers on a competency.

The gift, as stated in McDonald's letter, is conditional on the raising of at least \$500,000 by donations of \$100 or more from other citizens or business firms.

President Brockman acknowledged the gift and said he would use it in an effort to accomplish the end sought.

The police have no pension fund,

except a small competency they receive from their own relief association upon retirement from age or disability any time after five years in the service. This is not sufficient in any case to care for them for long. The only relief in sight for police at present is a bill now pending before the Legislature for an increase in salaries.

The text of McDonald's letter to President Brockman accompanying the gift follows:

"In many official interviews you have repeatedly called attention to the need of a pension fund for police officers who have been disabled in line of duty or who have reached a proper age for retirement from long and faithful service. The State of Missouri has done nothing, and the City of St. Louis has taken no action. Now, then, in order to bring this issue squarely before the citizens and business men of St. Louis, whose sons and property are now inadvisedly protected, we herewith attach our check for \$1000, payable to the Board of Police Commissioners, which may be cashed and applied to a police pension fund, if within a reasonable period of time enough other business firms and individuals will subscribe a similar amount or more so that the funds will amount to at least \$500,000."

President Brockman said he had

Heed McDonald's suggestion was the only way this fund could be created, as legislation to this end has failed.

HENKE RELEASED FROM JAIL ON \$30,000 APPEAL BOND

Professional Bondsman, Produce Merchant and Grocer Signs Bail for Convicted Wife Slayers

Harry A. Henke, under sentence to serve 20 years in the penitentiary for the murder of his wife, Marie, was released from the St. Louis County jail today on an appeal bond of \$30,000.

Henke, who has been in jail since the night of his conviction, Sept. 27, last, was granted the right to appeal to the Supreme Court more than a month ago, but had not been able to get bondsmen. Today George Dominick, professional bondsman; Michael J. Whalen, produce merchant, and Henry Berger, a grocer, signed the bond.

TWO SISTERS, TAKEN ON ROBBERY CHARGE, RELEASED

Salesman, Who Made Complaint to the Police, Refuses to Prosecute Them.

Mrs. Pauline Strode, 21 years old, and Mrs. Loretta Schaubmeyer, 19, sisters of 1921 Gratiot street, who were arrested on complaint of John A. Meyers, Southeast Missouri grocery salesman, that they had held him up with a revolver while riding with him in his automobile and robbed him of his watch and \$40, were released at 5 p. m. yesterday, when Meyers said he would not prosecute them.

COOLIDES VIEW ECLIPSE

Watch Spectacle Through Smoked Window Glass.

By the Associated Press.

WASHINGTON, Jan. 24.—President and Mrs. Coolidge, with pieces of ordinary smoke-smudged window glass in their only scientific apparatus, viewed the total eclipse of the sun from the south lawn of the White House. The chief executive and his wife appeared on the lawn at 8:40 o'clock, the President carrying a window pane with a big smoked spot in the center. Mrs. Coolidge had a smaller piece of glass similarly prepared.

The sharp morning air served to limit the Presidential observations to about 10 minutes, while photographers sought to get some pictures in the waning light. Coolidge went to his office before the eclipse reached its maximum, and started to work, evidently satisfied with his view of the preliminary part of the spectacle.

St. Louis Clouds Break As Moon Nearly Hides Sun

Up to That Moment Smoke Had Alternately Revealed and Obscured Eclipse—Thousands View Spectacle.

Watchers who tried to get a view of the sun when the moon had 86 per cent of it under cover at 7:55 o'clock this morning were compelled to look quick to see the phenomenon at its best, for the clouds that hovered above the Eastern horizon kept the eclipse in an intermittent game of hide and seek.

At intervals, however, the clouds furnished a brilliant and inspiring spectacle to thousands of St. Louisans who awaited it with extraordinary interest. For days it had been heralded as the nearest approach to a total eclipse visible in St. Louis since 1869 and long before the time for it to appear, the event was the dominating topic of conversation among early morning clouds lift for Eclipse.

When the first rays of sunlight began to break through the smoke of East St. Louis about 7:55 there were hundreds already scanning the sky from the streets and many, equipped with smoked glasses and cameras had clambered up roof ladders to the highest points of vantage in the downtown district.

Even if the spectacle was not continuous, they were well rewarded for their trouble, for between 7:50 and 7:55 the first rays of the shadow was missing. By 7:55 the outline of the moon's shadow was distinct. It was encroaching from what appeared to be the upper south side.

By 7:55 a haze had gathered and the outlines were dim, but five minutes later the clouds had shifted again and the shadow was visibly larger and seemed to be moving gradually across the disc. The glimpse afforded was only momentary, however, for the cloud curtain gathered again and it was not until 7:59 that it began to break through the mists, revealing the 380 meters sent out from WISY at Schenectady were picked up at the Bronx Laboratory. Dr. A. N. Goldsmith, chief broadcast engineer in charge said:

"The short wave could not be heard until just before sunrise when it came faintly. As the sun appeared the waves grew stronger.

As the short wave length increased the static increased. During totally the short wave was blotted out and conditions were exactly the same as before the sun rose. When the eclipse ceased the short wave had static returned as the sun appeared.

The long 380 meter waves were irregular before the eclipse but became noticeably regular during totality. As the sun began to shine again the irregularity increased and the static returned.

At 7:55 a haze had gathered and shifted again and the shadow was visible again. By this time the shadow was largest, the clouds had shifted around to the north side and obscured considerably more than three-fourths of the disc. The sun's appearance was like that of the rim of a new moon.

Most Impressive View.

Here the observers got their most impressive view and it was easy to perceive they were making the most of it. A score or more on the Railway Exchange Building brought their smoked glasses and cameras into action and other gazers could be seen on the roofs and in the highest windows of adjoining structures. Crews of workmen on two or three buildings were observed to suspend operations for a moment to look intently eastward.

The picture was not to endure long. The clouds gathered their forces and put an end to the spectacle. Only occasionally was the shape of the shadow visible afterwards as it receded. By 9 o'clock what remained of the shadow had ended, for the moon had passed on its way and observers in the Northern and Eastern States where the eclipse was total, put away their instruments for a long vacation, for, according to astronomers, a total eclipse will not be seen again in that region for some 250 years.

Astronomers Get Clear View of Sun's Eclipse

Continued from Page One.

the country by telegraph and telephone was a success. Professor Brown said.

Professor conditions were perfect, Professor Brown said. Just before totally sunbeams clouds took on beautiful colors. Some prominences were seen. The corona appeared to be of the minimum type, the professor said.

Success Not Yet Known.

It would be several days, Professor Brown stated, before the results of the observation and the scientific success of the photographs is determined. It will be several weeks before it is determined whether anything new has been discovered, the professor said.

Shadow bands appeared one minute before and one minute after totality. They were not prominent, Jupiter, Mercury and Venus were clearly visible. Apparently no comet was seen according to the information received here. Professor Brown said.

Phenomenon Varied.

In the exchange of telegram to the scientific observers scattered at various points, Middletown reported great success. Easthampton reported perfect conditions for color photographs and Buffalo said the color effects were beautiful. Poughkeepsie reported streamers of unusual shape.

Itasca reported a drop of five degrees in temperature during totality and said that clouds which obscured the sun cleared away a moment before totality.

Wonders of Spectacle.

Stop Work in New York

By the Associated Press.

NEW YORK, Jan. 24.—The marvelous spectacle of the total eclipse of the sun was observed here today at 9:11 a. m. under perfect conditions.

Not a cloud screened the passing of the moon before the sun's disk, and all the attendant phenomena, Bailey's Beads, the shadow bands and the pearly corona—were observed by thousands who filled streets and houses tops in the north section of the metropolis.

Stars Shoot Out by Day.

Mercury, Jupiter and Venus were clearly visible as night. Green, gold and scarlet colors added to the grand spectacle. The corona of the sun was perfectly visible.

The total eclipse lasted for about 40 seconds, as scientists had forecast.

A purple light gradually descended over the earth, forewarning the

sun's disappearance.

AUSTRALIA REPORTS CYCLONE

Damage Caused by Storm Estimated at \$500,000.

ST. LOUIS, Jan. 24.—A cyclone sweeping through Northeast and Western Australia according to reports received today, caused damage estimated at \$500,000.

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SHORT RADIO WAVES LONG DURING ECLIPSE

Long Waves, Irregular Before, Noticeably Regular During Totality Period.

By the Associated Press.

NEW YORK, Jan. 24.—From tests made of the behavior of the ether of the air during the total eclipse today, officials of the Radio Corporation of America deduced that a short wave length follows the sun, that static is entirely absent during totality because it was affected by general conditions and that a long wave length, irregular before the eclipse, became noticeably regular during totality.

Another meeting at the downtown Postoffice, Ninth and Olive streets, was mentioned in another letter. Senter indicated this was a good place, but not the best, adding, "I said Scruggs' Tenth street entrance was where people go when they're not ashamed to be seen."

Downtown "Scene" Described.

Previous testimony had described a "scene" which began in front of the Tenth street entrance at Vandervoort's and ended at Police Headquarters, after Mrs. Campbell had intercepted Senter in his automobile with a "Mrs. Ellis," and had jumped on the running board.

Senter was asked about a letter from Mrs. Campbell questioning his veracity in regard to activities at the Meramec River clubhouse, and asked, "Is it true you universal tell the truth?"

"I always try to tell the truth," he answered. "I remember one letter in which Mrs. Campbell said I had deceived her, but that didn't make the charge true."

"May the day come when we may never be separated," wrote Mrs. Campbell in another letter. Her will was of rare old lace. In place of a bridal bouquet, she carried a white prayer book, the gift of Bishop Kelley of Oklahoma, and rosary beads, the gift of Pope Pius XI. Her only ornament was a diamond pendant, the gift of the bridegroom. Bishop Kelley performed the nuptial mass.

Two thousand relatives and friends attended the wedding. Before the invited guests arrived there gathered in front of the Cathedral a large assemblage of the uninited.

MISS LORETTA HINES.

MISS LORETTA HINES, daughter of Mr. and Mrs. Edward Hines of Evanston, Ill., was married in the Holy Name Cathedral at Chicago today to Howell Howard of Dayton, O. Cardinal Mundelein officiated.

It was the first wedding ceremony presided over by Cardinal Mundelein since his elevation. Members of the Chicago Symphony Orchestra played a不堪的曲子 for the Cardinal entered and Tito Schipa, Chicago Civic Opera star, sang after the ceremony.

Two thousand relatives and

friends attended the wedding.

CARDINAL OFFICIATED AT HER WEDDING

Miss Loretta Hines, of Evanston, becomes bride of Howell Howard of Dayton.

Special to the Post-Dispatch.

CHICAGO, Jan. 24.—Chicago's \$100,000 wedding was solemnized at noon today when Miss Loretta Hines, daughter of Mr. and Mrs. Edward Hines of Evanston, was married to Howell Howard, son of Mrs. Maxwell Howard of Dayton, O. In Holy Name Cathedral George Cardinal Mundelein officiated.

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Special to the Post-Dispatch.

WASHINGTON, Jan. 24.—Senate leaders invoked the state rules today to shut off open discussion in the open session of the Senate.

When Senator Herlin (D. Ala.) advocated further investigation of the nomination, sought by Senator Heflin (D. Ala.) to have the nomination withdrawn, the Senate voted to adjourn.

President Cummins spoke in opposition, but Senator Heflin said he wanted to adjourn.

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DEBATE ON STONE'S NOMINATION SHUT OFF

Senate Votes to Go into Executive Session, Which Lasts an Hour.

By the Associated Press
WASHINGTON, Jan. 24.—Republican leaders invoked the Senate rules today to shut off an impromptu discussion in the open on Attorney-General Stone's nomination to the Supreme Court.

When Senator Hefflin (Dem.), Alabama, one of those who have advocated further investigation of the nomination, sought to speak, Senator Curtis of Kansas, the Republican leader, made a point of ordering that such a question could be discussed in the executive session.

President Cummins upheld the objection, but Senator Hefflin continued that he wanted to correct a statement in the New York World that he was opposing Stone's confirmation because the latter was an attorney for J. Pierpont Morgan.

With Senator Overman (Dem.), North Carolina, Hefflin said, he opposed Stone only because of his arguments before the Supreme Court in the Ownby case, which involved a litigation affecting the Morgan estate. "That's right," said Overman.

Senator Watson (Rep.), Indiana, objected to further observations of that kind, but Senator Red (Dem.), Missouri, took up the argument on the other side and President Cummins ruled that Hefflin could speak.

Objection again was raised, however, and then the La Follette insurgents and some others, including Senator Borah (Rep.), Idaho, joined with the Democrats in an effort to go into executive session. This was explained as a move to avoid technicalities in being planned to open the doors late, so the discussion could go on in an "open executive session."

The motion to close the doors carried, 37 to 35.

After it had been pointed out by a number of Senators that the Senate had decided to postpone consideration of the nomination until next Monday, Senator Hefflin agreed to let the matter go over that time.

At the end of an hour the executive session broke up and the Senate proceeded with regular business.

MAN IS STABBED DURING SCUFFLE IN RESTAURANT

Cafe Owner Says Customer Wanted to Kill Waitress Who Gave Him Order.

William P. Reilly, 36, 3400 North Fourth street, at city hospital, with a stab wound in the abdomen, suffered at 10 a. m. today in a restaurant on St. Louis' South Jefferson Avenue, when he is alleged to have refused to pay for his breakfast, until allowed to kiss the waitress who served him.

Richard Kaelsparian, 24, proprietor of the restaurant, told police of the Eighth District that Reilly was stabbed in a scuffle for a butcher knife with which he rushed to the assistance of the waitress when Reilly attempted to kiss her. Reilly refused to pay for an order unless he could embrace the waitress, Kaelsparian said.

Kaelsparian is being held pending the outcome of Reilly's wounds, which was pronounced serious. Reilly denied that there was a knife for possession of the knife, alleging that the restaurant proprietor rushed at him and inflicted the wound.

ST. LOUIS POST-DISPATCH
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Sunday only, \$6.00; Sunday, 50¢.
Remit either by postal order, express
or money order.Delivered by city carrier or out-of-town
newspaper. Sunday, 50¢.

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Dell, Olive 6600.

TICKET

PIKERS HOLD DRAKE TO ONE FIELD BASKET AND WIN, 40 TO 8

Washington's Attack, Based on Fast Passes, Bewilders the Bulldogs

Referee Giles Says Coach Whi te's Men Form the Fastest Team in the Valley—Minner and Cox Lead Pikeway Shooters in Scoring.

By Arthur Schneff.

The cyclonic Pikers, unleashing a whirlwind of basketball at the Coliseum last night, crushed the Drake University team by the one-sided score of 40 to 8. So much did Coach Don White's players have things their own way that the game would have been a dull affair but for the brilliant exhibition of basketball form displayed by the Red and Green speedsters. Washington substitutes played in the first quarter and an entire second team finished the game for the Pikers.

After the Pikers' first appearance against Oklahoma last week it was feared that Coach White's men were comparatively weak on defense, but all such doubts were laid at rest last night. Drake was held a single field goal during the entire game and the Piker guarding was so close that Coach Jessie Slosson's Bulldogs were hardly given a chance to shoot for the basket unopposed. Drake's six points were the result of free throws.

While the Piker defense was holding, Drake helpless, the Red and Green attack was functioning with the same dazzling effectiveness that upset Oklahoma. The passing was rifle-like, and the delivery from hand to hand with bewildering rapidity, until it was even given a chance to shoot for the basket for good. Referee W. C. Giles, who as a coach in football has been practically every Valley team in action this season, pronounced the Piker passing as the fastest of any team in the Valley.

Excellent Team Work.

The effectiveness of Washington's attack was in a large measure due to the co-operation of the players who rapidly passed up chances to take a basket in order to pass the ball to another man who seemed to be in a better position to make the shot. Jessie Slosson hardly ever shot at the basket, and "Bugs" Seage, a splendid marksman, time and again "fed" the ball to Minner or Cox for the "kill" under the iron hoop. The team work was an inimitable success, for it enabled the Pikers to win their most decisive victory in years and to administer to Drake the worst beating the Bulldogs have received in 12 seasons. And Drake has already played Kansas, Nebraska and the Kansas

Aggies. Washington's most dangerous rivals for the Valley title.

Minner and Capt. Cox, as usual, made the most of the scoring opportunities their teammates gave them, Jack scoring 13 points and Cox accounting for 11. Incidentally Capt. Cox gave one of the best exhibitions of his career. He was a cyclone all by himself.

With Washington leading, 36 to 6, Coach White sent in five substitutes. Drake scored two points on free throws and the Pikers finished their scoring at 40 points with Levey.

Tigers Play Here Tuesday.

The Pikers' next Conference game will take place Tuesday night, when the Missouri Tigers call at the Coliseum for a battle.

MURRAY NOT YET FREE TO SIGN A CONTRACT TO COACH PIKER ELEVEN

Frank Murray, coach at Marquette, who was in St. Louis yesterday to conduct a session whereby he is to become Washington University's head football coach next fall, returned to Milwaukee last night with negotiations still in progress.

It was hoped that Murray would affix his signature to a contract while here, but according to Washington University officials, they "struck a deal" during the discussions while awaiting Murray from signing yesterday.

Although it was not said just what the "snag" was, Murray did not turn down the Piker offer. Murray is understood to have certain arrangements to make before he can definitely accept Washington's offer, and is expected to telegraph his decision or return to Milwaukee next few days. It was said that Murray was pleased with the terms offered him, but was not yet free to conclude arrangements for the coaching.

Murray has made a favorable impression on the members of the Piker faculty and Washington alumni who met him during his visit. In addition to having enjoyed great popularity in Milwaukee for the past three years, Murray is a member of the faculty in the Department of Economics. He was an assistant from Tufts and later did graduate work at Harvard and Chicago Universities.

CONCORDIA SEMINARY PLAYS INDIANA STATE NORMAL FIVE NIGHT

The Concordia Seminary basketball team will oppose Indiana State Normal five nights to night. Following defeat at the hands of Marquette last Saturday, Coach Paddy Fitzgerald has been working the Seminary quintet hard all week in an effort to bolster the team's defense.

Indiana State Normal in an early season game defeated Indiana U. one of the contenders for the Big Ten championship.

Concordia will use Schneider and Matuschka at the forms; da Klepa, center, and Thode and Mencke, guards. Indiana Normal will have Van Horn and Story, forwards. Wille, center, and Wolk and Allbright, guards.

HEYDLER PLEDGES AID IN SCANDAL INQUIRY

By the Associated Press

NEW YORK, Jan. 24.—Full cooperation with the New York District Attorney's investigation into the Dolan-Vonetta baseball bribery scandal was promised yesterday by John A. Heydler, president of the National League, upon his return from Chicago where he attended a meeting of the advisory council.

President Heydler said that he would put "all resource he had at the disposal of the court and expressed willingness to testify him." The strike testimony first was made by Heydler, Andrew Fletcher, Philadelphia manager, after the latter had been advised by Helie Sand of O'Connell's \$5000 for the Phillips' shortstop.

Last Night's Fights.

SAN DIEGO, Cal.—Billy Wells, lightweight champion of England, decisively outpointed John M. McLean, local welterweight, in 10 rounds.

SAN FRANCISCO—Jack Silver, San Francisco lightweight, was decision from Oakland Frankie Burns in 10 rounds. Battling Ward, St. Louis lightweight, took a decision from Jack McCarthy. Providence, R. I., in six rounds.

NEW ORLEANS—Sammy Pugh, New Orleans, Demarre in 10 rounds; Jimmie Lee, New Orleans, Dick Adams in 10 rounds. Marcella beat Young Craft in four rounds; Bobby Hughes and Louis Martin fought a 10-round draw.

JOE and ASBESTOS—Joe Makes the Flivver Look Like a "Flivver"

JOE IS STILL
GIVING HIS
TURKISH FRIEND
"MOE BILE BEY"
A DAILY
EARFUL ON
AMERICAN
SPORTS,
AND TODAY,
HE'LL EXPLAIN
ALL ABOUT
THAT FAMOUS
OUTDOOR
PASTIME
CALLED
"FLIVVER
DRIVING"

SO YOU'VE NEVER HEARD OF "FLINVERING," EH? WHY IT'S ONE OF THE BIGGEST SPORTS WE HAVE, 'CAUSE A GUY MUST BE A GOOD SPORT TO DRIVE ONE! EXPERTS SAY IT'S VERY HEALTHFUL - FOR IT ENCOURAGES WALKING - IN FACT, IT HAS PUT THIS WHOLE NATION ON ITS FEET!

A BOOK OF "CROSS WORDS" COMES WITH EVERY ONE, SOLD, AND THE IDEA OF THE SPORT IS TO KEEP YOUR CAR FROM RUNNING UP THE TRAFFIC COP'S SLEEVE WHEN HE HOLDS OUT HIS MITT!

RIDING AROUND IN ONE OF THOSE GASOLINE JUMPING BEANS, IS LIKE TAKING A TRIP IN A REVOLVING DOOR - YOU NEVER GET ANYWHERE. THIS SPORT HAS RUINED MORE BACKS THAN FERRY BOAT CAMP CHAIRS - IN FACT IT HAS GIVEN THIS WHOLE COUNTRY A GENERAL SHAKING UP!

FLINVERS ARE USED FOR DELIVERING EVERYTHING BUT MILK: ONE COMPANY TRIED IT OUT BUT THE CUSTOMERS KICKED THEM WHEN THEY RECEIVED A BOTTLE OF BUTTER!

Flinvers are used for delivering everything but milk: one company tried it out but the customers kicked them when they received a bottle of butter!

—By Ken Kling

FRANCES COMPTON TOWED J. T. CLARKSON

Engagement Announced by Bride to Be at Dinner at Florissant Valley Club.

The engagement of Miss Frances Hope Compton, daughter of Mr. and Mrs. William R. Compton of 18 Kingsbury place, and John Turner Clarkson, son of Mr. and Mrs. W. Palmer Clarkson of 2 Wildermeadow place, was announced last night at a dinner given by Miss Compton at the Florissant Valley Country Club. The affair was arranged in honor of Miss Dorothy Claggett, a debutante of this season whose marriage to Donald Danforth will take place March 1. A dance followed. There were 42 guests.

Miss Compton is a graduate of Mary Institute and Vassar College and was presented to society last year, when she attended the Queen of the Four special maids of honor. Mr. Clarkson is a graduate of Cornell University, class of 1922. He is a member of the University Club. Mrs. John W. Turner of 4354 Maryland avenue is his grandmother. The wedding date has not been announced.

DICKINSON SAYS COUNTRY IS BEING "HOOVERIZED"

Farm Leader Enters Debate Over Bureau Appropriation of \$2,007,000.

WASHINGTON, Jan. 24.—Rivalry between the departments of commerce and agriculture, centering about the appointment of a Secretary of Agriculture, broke out on the floor of the House yesterday in connection with the pending appropriation of \$2,007,000 for the Bureau of Foreign and Domestic Commerce, in the Department of Commerce appropriation bill.

Representative Dickinson, Republican, Iowa, leader of the farm bloc in the House, introduced an amendment providing that none of this money shall be used for the construction of a new agriculture building.

Representative Burns, Democrat, Tennessee, introduced an amendment increasing the appropriation \$300,000. Both the Burns and Dickinson amendments were voted down.

Representative Dickinson said the bill as introduced represented a desire to "Hooverize" the country "still further" and that the situation had come to such a pass that even the selection of a Secretary of Agriculture was to be made on the basis of some one satisfactory to Hoover. The activities of the Bureau of Foreign and Domestic Commerce, he charged, indicated a desire on the part of "big business" to employ a sales manager abroad at the expense of the taxpayers.

AMUNDSEN'S FINANCES AIDED

American Creditors Decide Not to Sue for Bankruptcy in U. S.

Special Cable to the Post-Dispatch and the St. Louis Star.

OSLO, Norway—Christiania, Jan. 24.—The failure of Capt. Raoul Amundsen has been simplified by the decision of the American creditors not to bring bankruptcy proceedings against the explorer in the United States, but to enter their claims in Norway. The largest Norwegian creditor is Capt. Amundsen's brother, Leon. The most difficult problem to solve is what to do with Capt. Amundsen's house, which will be sold next month.

One of the biggest creditors is the Chicago Tribune, with which Capt. Amundsen had a contract to write stories in connection with his year's polar flight. This contract was not nearly so hardy effective, as the Norwegian Aero Association has taken over the arrangement of this summer's flight.

The Billikens will play Rockhurst Five.

Kapl, Stanton and O'Toole May Be Unable to Play in Game Tonight.

At Miami.

Weather cloudy; track sloppy.

FIRST RACE, claiming \$1,000, 3-year-olds and up, one mile, 90 yards. St. Louis 104, No. 2, 1st; Minn. 104, No. 3, 2nd; Ind. 104, No. 4, 3rd; Iowa 104, No. 5, 4th; Missouri 104, No. 6, 5th; Kansas 104, No. 7, 6th; Illinois 104, No. 8, 7th; Ohio 104, No. 9, 8th; Michigan 104, No. 10, 9th; Wisconsin 104, No. 11, 10th; Missouri 104, No. 12, 11th; Kansas 104, No. 13, 12th; Illinois 104, No. 14, 13th; Indiana 104, No. 15, 14th; Missouri 104, No. 16, 15th; Illinois 104, No. 17, 16th; Missouri 104, No. 18, 17th; Illinois 104, No. 19, 18th; Missouri 104, No. 20, 19th; Illinois 104, No. 21, 20th; Missouri 104, No. 22, 21st; Illinois 104, No. 23, 22nd; Missouri 104, No. 24, 23rd; Illinois 104, No. 25, 24th; Missouri 104, No. 26, 25th; Illinois 104, No. 27, 26th; Missouri 104, No. 28, 27th; Illinois 104, No. 29, 28th; Missouri 104, No. 30, 29th; Illinois 104, No. 31, 30th; Missouri 104, No. 32, 31st; Illinois 104, No. 33, 32nd; Missouri 104, No. 34, 33rd; Illinois 104, No. 35, 34th; Missouri 104, No. 36, 35th; Illinois 104, No. 37, 36th; Missouri 104, No. 38, 37th; 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Illinois 104, No. 285, 286th; Missouri 104, No.

We Are So
Miser About
Car Sales

we are selling when we
our good will that is in-
That's why we make
actual condition of every
and tell the prospective
Here are some we unhe-
prices lower than ever

Closed Cars

Maxwell Coupe
Ford Coups
Ford Sedans
Overland Sedans
Willys-Knight Sedan
Dodge Bros. Sedan
Reo Coupe
Chevrolet Sedan
Overland Coupes
Maxwell Sedan

Seeing is believing.
our pocketbook.

CE CHARGES

overland, Inc.
BRANCH
2320 & LOCUST STS
Place to Buy.

Sedans For Sale

Jewett DeLuxe Sedan
A place on wheels to Lauging Water
blue: the stunt record makes this a
sport model that sells for \$1650; save real
money by buying it today at \$875. on
terms.

Yahlem
1035 N. GRAND

OVERLAND—Vivacious sedan;
blue: the stunt record makes this a
sport model that sells for \$1650; save real
money by buying it today at \$875. on
terms.

STUDEBAKER SEVEN
Light Six 5-pass.; new car; appa-
reance: all new tires; perfect mechan-
ical condition; exceptional value. Terms
on trade.

PARK AUTOMOBILE COMPANY
Oldest Autocar Firm, St. Louis.

PEERLESS DISTRIBUTORS
Bomont 1840.

Accessories, Parts—For Sale

BUICK—Vivacious sedan;
blue: the stunt record makes this a
sport model that sells for \$1650; save real
money by buying it today at \$875. on
terms.

STUDEBAKER SEVEN
Light Six 5-pass.; new car; appa-
reance: all new tires; perfect mechan-
ical condition; exceptional value. Terms
on trade.

PARK AUTOMOBILE COMPANY
Oldest Autocar Firm, St. Louis.

PEERLESS DISTRIBUTORS
Bomont 1840.

Touring Cars for Sale

People Look!
Used \$5 Down
Cars

Autumn touring, \$85; runs like a watch
and guaranteed.

—C.S. \$150.

NASH \$195.

OAKLAND \$218.

REO \$245.

RICOH \$250.

DODGE \$250.

JORDAN \$250.

MOON \$250.

FORD \$250.

WILCOX \$250.

GARDNER \$250.

NATIONAL \$250.

COLONIAL \$250.

HONES \$250.

Only \$5 down and \$5 every week. Free
storage if you don't want the car now.

Yahlem
1035 N. GRAND

CADILLAC—Touring, balloon tires; red; ex-
ceptional; 3441 Juniper, tel.

Cadillac Sport, 1920, \$695

I am instructed to sell this \$1360.00

truck. It is in excellent condition.

Shock absorbers, \$1.50 set tires, motor like

new. Price \$1360.00.

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PART TWO.

Hudson Maxim's
Reminiscences

By Ralph Coghlan.
Hudson MAXIM is an old man now, but he is still as wild as a mountain goat. God gave him the brains of an inventor, and he has spent most of his life equipping himself with the stage setting of the genre. By parading in the lobby of a New York hotel with a raised umbrella by driving his automobile hell-bent over the roads around Lake Hopatcong, by eating his food in the kitchen before the meal is served, and by a manner of idiotic and quixotic acts, speeches and mannerisms, he has broadcast his profession to the world.

Not that Maxim is a fool. Far from it. In some safety deposit vault, there lies a neat pile of securities which have accrued to him through his work with smokeless powder and high explosives. To this pile the Du Ponts contributed more than \$200,000, and from them, besides, Maxim has a fat check as one of their consulting engineers. But now that that's settled, Maxim devotes himself assiduously to the task of being a professional genius.

HIS roots are in the backwoods of Maine, and despite a life in which has entered many cosmopolitan influences, he is still a backwoodsman. He was always a great hand at using his fists and boasts of his prowess at "knocking 'em for a loop" at every opportunity. In fact, if his stiffened adversaries were stretched end to end, no telling how far they would reach. Even in 1915, at the age of 62, he wrote to a rabbi who had made an unfavorable comment on one of Maxim's literary publications: "If you will get into a 24-foot ring with me, either in our synagogue, or here in my tennis court, and if you can stay with me through three minutes rounds, I will build you a synagogue."

While this is a process most painful to Maxim, he must be distinguished from other Maxims. He is not the man who invented the Maxim machine gun. That is the product of Hiram Maxim, his brother. Nor is he responsible for the Maxim silencer. That was invented by Hiram Percy Maxim, his nephew. Hudson's chief fame is due to his development of smokeless powder.

MAXIM'S biography is an extraordinary human document. If you think you will find in it long technical discourses on high explosives, you're wrong. It is instead a most amazing collection of anecdotes and miscellany distinctly human in quality. A good third of the book is devoted to Maxim's story of his life as a child in Maine, a life of abject poverty, picturesque as the stories of the modern "dirt novelists." Maxim didn't own a pair of shoes until he was 12, and frequently didn't have enough to eat. For something like 150 pages Maxim recalls in minute detail with surprising vigor the squalid circumstances of his childhood. He spares nobody or nothing, certainly not himself, in his Rabelaisian and brutally frank account.

Hudson Maxim is a highly energetic, highly intellectual roughneck, with great ability, great humanity, but as vain and willful as a child. Besides being a genius in invention, he writes poetry and songs. He is a world-beater with his fists, once rode the most courage of broken horses, and did a score of other things better than anyone else could do them; just as, when he was a child, he could eat more live crickets than any kid in the neighborhood.

C. LIFTON JOHNSON, in writing Maxim's "biography" "Hudson Maxim," (Doubleday-Pace) has done an excellent piece of literary work. The book is built on a novel plan. Maxim is allowed to tell his own story, which is transcribed in the first person, giving it all the flavor of an autobiography and with far better coherence and arrangement than is usual in the self-written brand. Before each character a foreword, in which the author gives delightful glimpses into the Maxim household, and interesting incidents which occurred in the collection of the material. These forewords do not break into the thread of the main yarn. It is an ingenious idea and most skilfully wrought.

Book: "Funk & Wagnalls. All the words are defined in Funk & Wagnalls' standard dictionary."

"Beautiful Gardens in America," by Louise Shelton; Scribner's. With many photographs, including one of the gardens of Mr. and Mrs. Samuel W. Fordyce at Hazelwood, Kinloch, Mo.

"The Burning Shame of America," by Richard J. Walsh; Eudge—A satirical tract against nicotine.

"Child Health Library"; Hirsch's. A series of 10 little books on the care of children, written by practicing specialists.

"Debate on Prohibition;" The League for Public Discussion, New York.—Clarence Darrow is against it, and the Rev. John Haynes Holmes argues in its favor.

"The Trinity of Civilization;" Published by "Yours Truly," Earl Building, New York.—An anonymous tract on the Roman Catholic church, vicious and vindictive.

"Spiritism: Facts and Frauds;" by Simon A. Blackmore, S. J.; Bonzinger.—A criticism from the stand-point of the Roman Catholics.

HUGHES REPLIES
INFORMALLY TO
FRENCH DEBT NOTEDECLARES DELMAR
CURBED-IN TRACKS
MAKE FOR SAFETY

Announcement Made, However, That No Basis Is Yet Afforded for Negotiations on Settlement.

COOLIDGE LEANS
TO BORAH'S VIEW

Senator Bruce Replies to Idahoan and Stresses French Sympathy for America in Revolution.

Post-Dispatch Bureau,
20-23 Wyatt Building.

WASHINGTON, Jan. 24.—President Coolidge has indicated a sympathy with Senator Borah's views on the French debt, though the White House made known that Mr. Coolidge had read only the headlines on the Idaho Senator's speech in the Senate and was, in any event, loath to make any comment that might be misunderstood abroad.

That America is not a Shylock among the nations, but is lenient creditor, is the White House view. It was emphasized yesterday that we have not been dunning the war debtors, and otherwise done nothing officially beyond giving notice of the formation of the Debt Commission. Members of the commission while abroad have informally sounded out the situation, but no pressure has been attempted to compel payment. The White House spokesman for the President stressed the point that all our debt negotiations with France have been entirely informal. The State Department looked to the same emphasis in announcing that a note has been sent, presumably by Secretary Hughes, in reply to the one received from Finance Minister Clemenceau.

Clemente's memorandum had been informal and the reply was equally so. Nothing was divulged concerning it save that the exchanges have afforded no basis whatever for negotiations or indicated any immediate approach to a matter of some hazard.

Changing of any part of the United Railways' curbed-in right-of-way on Delmar boulevard west of Kingshighway, as proposed in a bill now under discussion in the Senate, would be a backward step in the city's safety program, particularly, waiting for a car where no platform is built, is a matter of some hazard.

Changing of any part of the United Railways' curbed-in right-of-way on Delmar boulevard west of Kingshighway, as proposed in a bill now under discussion in the Senate, would be a backward step in the city's safety program, particularly, waiting for a car where no platform is built, is a matter of some hazard.

The delegate from Finland said that every effort had been made to prevent the collapse of the conference and that he believed his plan was a way out of the crisis.

Adopted After Recess.

Senator Bruce (Dem.) and, renewed the Senate debate by merely disagreeing with Borah's motion to survey and, to the surprise of the gallery, classed Woodrow Wilson as a historian to whom no serious scholar ever turned in quest of facts.

Bruce Replied to Borah.

Viscount Cecil, the British representative, then moved a short recess to examine the text of the motion.

"It is difficult for the sovereign governments to retire from the position they have adopted," said Lord Cecil, "and we can all accept this solution without claiming victory. The success of the League of Nations is in agreement without the vote of the entire Board shortly.

Cecil Conference Report.

Col. Perkins bases his opposition to the change on the report of a committee of construction and engineering at the National Conference on Street and Highway Safety, held at Washington last November. This report is in part as follows: "For wide principal streets well outside of the congested or strictly business areas of the city, accommodating both street and vehicular traffic, the public is best served by a physical separation of these two classes of traffic. A reservation in the center of the street should be provided for the exclusive use of the street railway, with a one-way driveway on each side for other vehicular traffic."

Disputing Borah's contention that France came to American aid in the revolution from selfish motives and not for love of our cause, Senator Bruce disbarred Borah's quotation from Wilson's history.

"Why, in order to establish this fact," asked Bruce, "should the Senator from Idaho have turned to the history of the United States by Woodrow Wilson, whose history, I am great respect, is not very true?"

Bruce cited Washington, Benjamin Franklin and Count Segur as to Borah's array of evidence.

Bruce's Attitude.

Alderman Brod and two other members of the Streets' Committee second Col. Perkins. At a special meeting of the committee Wednesday Brod said he would not sanction the change, except as to the removal of trolley poles from the center of the street. He suggested the poles be incorporated in the new street lighting and be made to serve two purposes.

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Perkins Says Proposed Elimination Would Be Backward Step in City's Traffic Policy.

CITES REPORT BY
SAFETY CONFERENCE

"Public Best Served by Separation of Street Car and Vehicular Traffic on Wide Streets."

Post-Dispatch Bureau,
20-23 Wyatt Building.

WASHINGTON, Jan. 24.—President Coolidge has indicated a sympathy with Senator Borah's views on the French debt, though the White House made known that Mr. Coolidge had read only the headlines on the Idaho Senator's speech in the Senate and was, in any event, loath to make any comment that might be misunderstood abroad.

These safety isles are mostly on Delmar boulevard west of Kingshighway. In the early morning, when the thousands of county residents are hurrying in autos to work, and in the evening when they are "beating 'em" for home, it is something of a peril for a pedestrian to step out into the middle of the street to await the coming of a trolley car. "Beating 'em" is correct, because many an automobile tries to get to the street first so he will not have to stop behind the trolley car as it comes to a standstill for passengers.

Where safety isles are provided, there are intervals in the auto traffic which can in safety go out into the middle of the thoroughfare to the trolley car. The trolley car, the platform, and wait for the trolley car. But in the evening, particularly, waiting for a car where no platform is built, is a matter of some hazard.

Changing of any part of the United Railways' curbed-in right-of-way on Delmar boulevard west of Kingshighway, as proposed in a bill now under discussion in the Senate, would be a backward step in the city's safety program, particularly, waiting for a car where no platform is built, is a matter of some hazard.

The delegate from Finland said that every effort had been made to prevent the collapse of the conference and that he believed his plan was a way out of the crisis.

Adopted After Recess.

Viscount Cecil, the British representative, then moved a short recess to examine the text of the motion.

"It is difficult for the sovereign governments to retire from the position they have adopted," said Lord Cecil, "and we can all accept this solution without claiming victory. The success of the League of Nations is in agreement without the vote of the entire Board shortly.

Cecil Conference Report.

Col. Perkins bases his opposition to the change on the report of a committee of construction and engineering at the National Conference on Street and Highway Safety, held at Washington last November. This report is in part as follows: "For wide principal streets well outside of the congested or strictly business areas of the city, accommodating both street and vehicular traffic, the public is best served by a physical separation of these two classes of traffic. A reservation in the center of the street should be provided for the exclusive use of the street railway, with a one-way driveway on each side for other vehicular traffic."

Disputing Borah's contention that France came to American aid in the revolution from selfish motives and not for love of our cause, Senator Bruce disbarred Borah's quotation from Wilson's history.

"Why, in order to establish this fact," asked Bruce, "should the Senator from Idaho have turned to the history of the United States by Woodrow Wilson, whose history, I am great respect, is not very true?"

Bruce cited Washington, Benjamin Franklin and Count Segur as to Borah's array of evidence.

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ST. LOUIS POST-DISPATCH
Founded by JOSEPH PULITZER
Dec. 12, 1873.
Published by the Pulitzer Publishing
Company, Twelfth Boulevard
and Olive Street.

**THE POST-DISPATCH PLAT-
FORM**

I know that my retirement will make no difference in the cardinal principles. It will always fight for progress and reform, never tolerate injustice or corruption, always fight demagogues of all parties, never belong to any party, always oppose privileged classes and public plunderers, never lack sympathy with the poor, always remain devoted to the public welfare, never be satisfied with merely printing news, always be drastically independent; never be afraid to attack wrong, whether by predatory plutocracy or predatory poverty.

JOSEPH PULITZER
April 10, 1907.

LETTERS FROM THE PEOPLE

Supreme Court Reversals.

To the Editor of the Post-Dispatch:
OUR readers doubtless would like to know exactly what percentage of all criminal cases appealed to the Missouri Supreme Court are reversed. The Clerk of the court furnished these figures, which are available to any who may inquire:

During the year 1924, 123 criminal cases were finally disposed of by the Supreme Court. Of these, 41 were reversed and most of them remanded; 54 were affirmed, and in 28, on motion of the Attorney-General, appeals were dismissed for technical reasons. The dismissal of an appeal is the same as an affirmation. The actual reversals, instead of being 48 per cent, are about 30 per cent of all the cases appealed to the Supreme Court. The figures for 1923 are about the same. Perhaps the Attorney-General got his figures from the report of the State Bar Association, which apparently did not get them from the records of the Supreme Court.

The cases from St. Louis, determined during the year, were 17, of which nine were affirmed, the appeal in one dismissed, two were continued and five reversed and remanded.

ATTENDING COURT.

Jefferson City, Mo.

Compensation for Courage.

To the Editor of the Post-Dispatch:

PRESIDENT BROCKMAN'S stand with regard to the police accepting extra compensation is hard to understand. If an officer performs his duty as bravely as did Officer Lang at Clayton and Skinker roads, it should be his privilege to accept just as much compensation as is offered to him. This officer should be rewarded by the individual who has faced death. There is not one firm in St. Louis or anywhere else which accepts honor and glory in payment of any debt. So let our police accept any compensation for their bravery.

MIRE, T. L. S.

Through Bus Lines.

To the Editor of the Post-Dispatch:

REFERRING to your recent article pertaining to bus service between here and Memphis to the south and Birds Point, as to practical commercial value on a 16-hour run between the two points mentioned. The local service for the accommodation of way-station pickers would be the only advantage to transient travelers. As for local traffic, the Fords, Chevrolets or any other make car would cut in on local bus traffic. For a majority of the population of Southwest Illinois and Southeast Missouri possess these means of transportation. And as to through passengers, the buses could hardly compete with the Illinois Central or Frisco eight-hour trains to Memphis or their 10 or 12 hour local trains.

I am a bus advocate, locally and through, but I cannot see the feasibility of a 16-hour run to Memphis and changing buses at Cairo via steamer Kiwanis to Birds Point. It would be plausible to dine at the Halliday House if convenient, but would hate to be moored at Birds Point, hungry, waiting for the boat. Also stops for meals en route would have to be considered, as there is no Fred Harvey or Van Noy eating houses at some of the points en route, and lower berths would be somewhat wanting. The 16-hour service could probably be reduced to 12 hours if the present advertising gets active. But for a forerunner, the local way service (transient) would be the only advantage to the traveling public.

SENATOR SPENCER ON THE ECLIPSE.

When these lines appear, if ever, Senator Spencer will have witnessed the eclipse from an army mail plane, will have winged his way back to Washington and will be ready to make his report. What will his judgment be? Have no fear. All will be well. May we quote him? We hope so:

"The eclipse," said Senator Spencer, "was admirable. It eclipsed all previous eclipses. It was a masterpiece. I thoroughly enjoyed it. That is rather more than I can say for some of the other eclipses of this quadrupennum. For instance, the eclipse of Mr. Deuby distressed me. So with the Daugherty eclipse—there really was no thrill there for me. And the eclipse of that sterility but terribly misunderstood patriot, Albert B. Fall, though impressive, perhaps, left me groping and unhappy. But the eclipse this morning was a profound, competent, flawless demonstration. It was precisely the kind of eclipse we should expect under a President like Calvin Coolidge, or any other Republican."

Now if it be true that the Los Angeles enthusiast, rapt into linguistic ecstasy, by the sight of some cinema "star" in the unmarred warmth of the living flesh, has discovered the veritable goddess herself, the question is settled. We are taking it for granted, quite of course, that the Hollywood Venus possesses arms, and lovely, lissome, luring arms at that.

Granted, then, that the arms are there, it follows that the sculptor did put such members upon the figure so justly famed.

PUBLIC AND LOBBY.

Representative Hawes has won his fight to obtain a hearing before the House Rules Committee on his resolution to investigate the record and conduct of Judge English of the Eastern Illinois Judicial District. He has won his fight for a public, not a secret, hearing. His statement before the committee will be made public.

This is the first decisive victory for the public welfare in the English case. The impropriety of refusing a member of the House a hearing before the committee or of prohibiting publicity is manifest. It is emphasized by the fact that a fight is being made against the English-Thomas investigation by lobbyists and representatives of corporations with interests in Judge English's court.

The struggle to get the English case into the House Judiciary Committee and before the House is resolving itself into a trial of strength between the public interest and the influence of lobbyists and corporation representatives, who are striving to suppress any investigation.

The situation is extraordinary. The Post-Dispatch as a medium of publicity, without any interest to serve except the public welfare, has directed attention to evidence of impropriety and misconduct on the part of Judge English and Mr. Thomas, his former Referee in Bankruptcy, which have brought his court into disrepute and disrespect of lawyers and litigants.

The complaints against Judge English and Mr. Thomas are notorious. The Post-Dispatch has submitted evidence and names of complainants. Obviously, it is impossible to supply all the evidence. That can only be done by an investigation under the authority of the House of Representatives, in which witnesses may be summoned to testify under oath, and books and papers may be called for.

On the other hand, Judge English and Mr. Thomas are not seeking vindication. They are not asking that the many charges against them be investigated and their innocence be established. To the contrary, their friends, lawyers and representatives of a corporation with interests in the court are striving with might and main to prevent any investigation. A mighty effort is being made by lobbyists to suppress any inquiry into the conduct of Judge English and Mr. Thomas.

The issue is clear. Which is the stronger in the Rules Committee—the interests of the lobby and the personal advantage of Judge English and Mr. Thomas, or the interests of the people?

THE ALMIGHTY VITAMINE.

Dr. E. V. McCollum of Johns Hopkins University, famed authority on nutrition, warns the public not to seek its vitamins in a bottle but in the ordinary articles of food. Nutrition is not to be found at the drug store but at the grocery, the vegetable market, the fruit counter.

There is nothing shocking in this advice to the younger generation, which has had the beginning of a schooling in balanced diet. It is revolutionary to the fishwife school of medicine, whose adoration for the apothecary's shelf is closely related to the age of miracles, witchcraft and sorcery.

It is not many years since the layman was advised

purely of the fuel properties of food. Calories were the test in those days. Now we have a new wonder in vitamins, which, for the power that is in them and the little that is known of their substance, might be designated as miracles except for the fact that, like the rest of nature, they operate according to law with dependable constancy.

Many ills of the flesh which ended in death baffled understanding and defied the ministrations of doctors and apothecaries prior to the discovery of vitamins. For the lack of any one of several classes of vitamins the nasal membranes, salivary glands, tear ducts, alimentary canal, the nervous system and other functionaries are affected. Blindness, the Oriental beri-beri, scurvy and rickets are among the diseases contracted from the lack of proper balance of little fairies in certain foods.

The discovery of vitamins lifts a bondage from mankind. It is the means not only of prolonging life but of making life worth living. It is a blow not only to traditional illusions but to quacks, cults and curatives. A little knowledge of vitamins is worth a ton of drugs and costs less than a minimum doctor's bill. And yet to the science of medicine, which, by its research, tends to the elimination of its own practitioners, do we owe this new key to physical strength and happiness.

ANOTHER IDOL UNSHATTERED.

"In the Louvre," writes a spelled professor of pulchritude in the Los Angeles Times, "I saw the mutilated statue of the Venus di Milo. In a Hollywood studio I saw the goddess herself."

This is glorious news, if true. As everybody knows, the assumed mutilation of the marble Venus has to do with the arms, which are supposed to have been broken off since the ancient sculptor turned in his finished job. But just now the art world is confronted by an expert opinion to the effect that the Venus di Milo really never had any arms.

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OH, FOR JESSE JAMES!

Banditry has fallen on evil days. A bold, bad man pointed a pistol at Representative Frye the other day in the State Capitol, and commanded him to hold up his hands. Mr. Frye, 72 years old and no Ocelite, pushed the pistol aside and engaged the man in combat. In another moment, the bold, bad man would have been spanked and sent to bed without his supper, but he managed to get loose from Mr. Frye and dash away, probably to sot out his disappointment in some quiet corner. Another 72-year-old man, clerk in a St. Louis store, laughed a good-bye at the bandit.

Already this year five policemen have spoiled the plans of bandits, and more than twice as many civilians, instead of submitting meekly to robbery, have shot or routed their assailants. It is most evident that the profession of banditry has degenerated. A cuff behind the ear seems quite enough to send the worst of them scurrying to cover. Old master crooks would turn in their graves if they but knew how the ancient profession is stagnating in the streets and alleys of St. Louis. When policemen, commission men, shoe salesmen and even gray-

heads of 72 put the quietus on these armed young

THROUGH THE NARROWS.

(From the Brooklyn Eagle)



men, what in the world has become of the rich traditions of Jesse James and Cole Younger?

WHEN BOOTLEGGERS GO TO COURT.

Two Kentucky bootleggers entered into a contract by which one agreed to tell the other where he could buy 118-proof whisky. The consideration was \$8 a case, to be paid to the first bootlegger upon all whisky purchased by bootlegger No. 2. Whereupon, the latter proceeded to violate the contract by buying 100 cases and refusing to pay the commission of \$800.

Did these two worthies settle their difference with 20 paces, or gas pipes at closer range? They did not. In a moment of inspiration they took their troubles to the law, having heard that the law is interested in the sanctity of contracts. After the started Judge recovered his equilibrium he wrote an opinion which should forever discourage dealers in bootleg from repeating the experiment.

Nor did the Judge act summarily. From the deep one of the law he produced two similar gems of gall. One concerned the case of two English highwaymen who formed a partnership to divide the proceeds of their nocturnal labors. One sued the other because the latter had "held out" on him. "Scandal and impropriety" was the ground upon which the case was thrown out.

There was also a man in Cincinnati who contracted with a crony to exchange \$300 in real money for \$3000 in counterfeit. The crony absconded with the \$300 and his mate accomplice took the case to court, from which it was bodily ejected.

With ponderous deliberation the Judge in the present case reviewed these precedents, saying: "A man cannot at the same time break the law and invoke its aid." He even went so far as to liken the plaintiff to Judas Iscariot if the latter had sued in a Christian court to recover his 30 pieces of silver, providing that payment had been withheld by the Jewish high authorities.

No doubt the decision caused many a tear to flow in bootlegging circles, for these gentry have got to the point where they would welcome an amicable settlement of their disputes. How nice it would be if a bootlegger's code might be established, which, for example, would consign the chateleur hijacker to brimstone and hell-fire! Alas! The "boys" must forego as their arena the kindly limits of the courtroom and continue to fight out their disputes in the back alley.

THE LOVE OF SOCIAL JUSTICE.

The twenty-ninth national biennial convention of the Union of Hebrew Congregations and affiliated organizations terminated in St. Louis with a general and comprehensive expression of social justice. The platform contains 17 articles and is a reaffirmation of the program adopted by the Central Conference of American Rabbis in 1922.

We need not necessarily agree with every item in the program to approve and commend its spirit. It calls for a great deal of governmental regulation and yields, though not frequently, to the popular tendency to overload the Federal Government with power and responsibility. Otherwise, it is truly liberal and represents a practical application of religion to life.

JUST A MINUTE.

Written for the Post-Dispatch
By CLARK McADAMS
Copyright, 1925.

Sir: In your issue of Sunday, Jan. 11, you published a poem, "Maud Muller." Well, sir, when I see the title of that poem I say to myself, "see I, there's some guy what's stole my thunder, 'cause you see I have a poem all my own what I had composed in my idle moments and ripped off on my typewriter." So, as I read on, I say, "a different 'twixt this composition and mine, so I begin rambling around in my desk till I find my copy and see I to myself, 'see I, well, mabe he'll publish thisun, so I'm sendin' it right along."

Maud Muller's Granddaughter.
Maud Muller on a summer day.
Dressed to go to town.
Her clothes were few, of a gaudy hue.
Her face was like a clown.

She discarded her rake for the latest make
Of a forty-four cylinder car.
That could do a mile in ten seconds flat.
Without a jolt or jar.

Now Maud was keen. With her jelly bean
She would dance till the break of day.
She would have her fun. With the morning sun.
She usually hit the hay.

Maud never would stop for the traffic cop.
For his signals she chorited "Fudge!"
Till there came a day after driving "say" when she said, "Good morning, Judge!"

Now the Judge nearly perished for in memory
A girl with a bonnet and rake;
But the Maud who stood there with her close-bobbled air
In the hayfield had been a plain fake.

So he said: "Ten and costs, for I see that
you've lost
Your agricultural desire.
You've scattered your zeal on a big steering wheel.
And setting the pavements afire."

The Maud that I knew was nothing like you.
Her beauty she never would fake.

So the fine you may pay, but if the law I could say,
I'd sentence you back to the rakes."

J. E. WOOLEY.
Joplin, Mo.

A breach-of-promise case always makes us of wonder how a bachelor figures it. If the wedding ring, as one of our contributors has said, is only the first round, how much more deafering is the conflict off where the bachelors are still holding out!

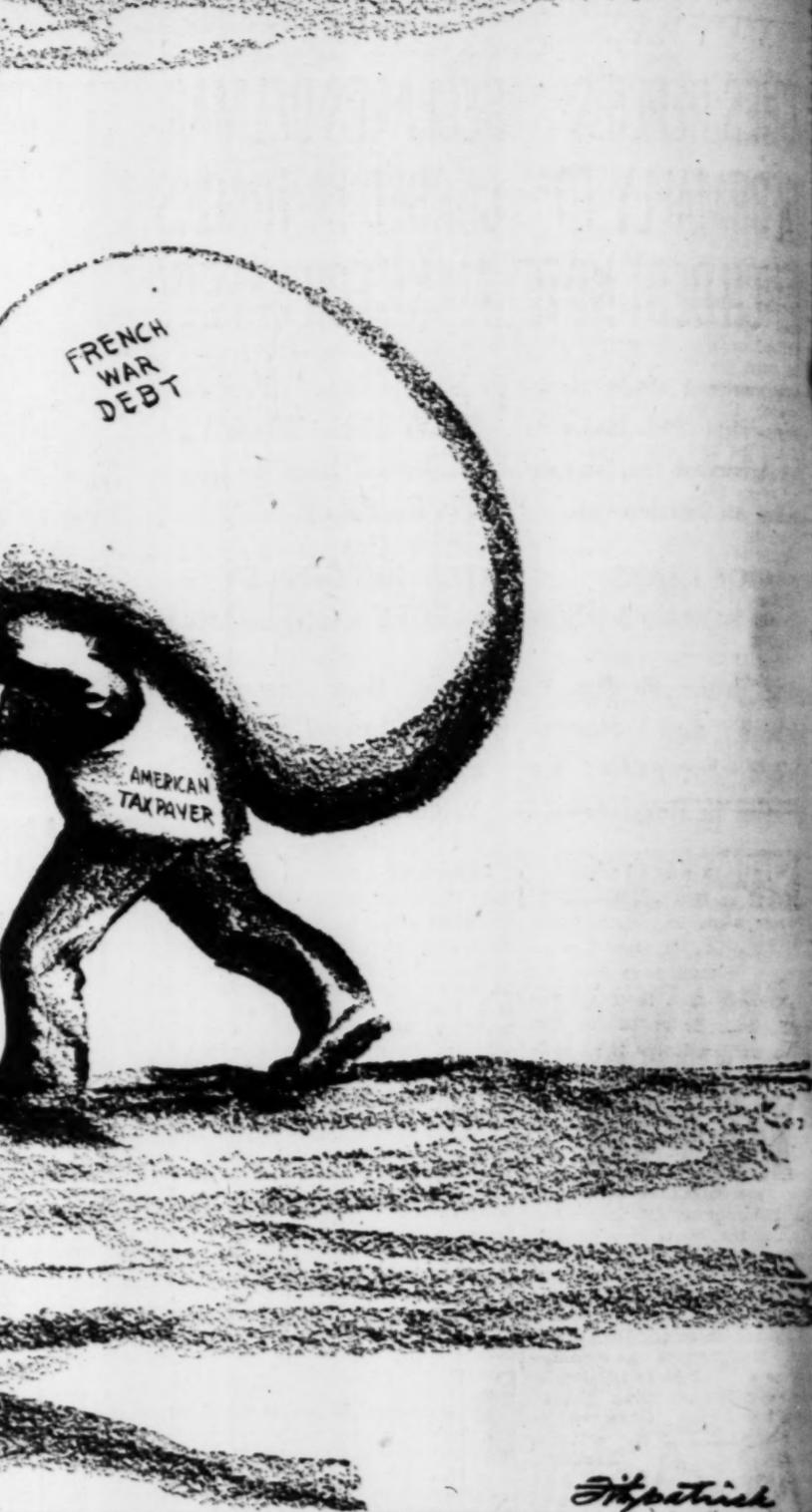
A New York woman has just born quadruplets. It looks as if the rum fleet ought to be permitted to spend a night at the Hudson docks on an occasion like this.

A want ad:

Buck-4 Coach
This car is just like new: carries our regular 30-day guarantee; this car won't last long; real bargain.

Who says truth in advertising isn't gained?

W. D. H.



"LAFAYETTE, YOU ARE THERE!"

**The MIRROR
PUBLIC OPINION**

This column is designed to report without bias the latest comment by leading publicists, newspaper and periodicals on the questions of the day.

A SCHOOL FOR BRIDES.

From the Baltimore Evening Sun.

THE assumption that a young lady whose soul is pulsing with love can be made practical and homely household arts in preparation for wifely duties is odd and unusual, but if it can indeed be done to honor to the Young Women's Christian Association for its sublime faith and courageous determination to do it. A school for brides will be a welcome addition to great institutions of learning.

But after the big event, what remains? Nothing. The bolt has been shot. The theory seems to be that if Chicago is not a desirable place to reach by dinner time, next morning is good enough. Chicagoans who stay here afternoon are here until night. That isn't so bad, but St. Louis in Chicago are afforded similar treatment, which, of course, is a serious matter. We commend to the attention of the railroads involved, the time cards of the New Haven and the Pennsylvania, which lines do not place any ban on late afternoon travel between New York, Boston and Washington. A. L. B.

Sir: Of the meteors that fall in this country, it has been noted that the State of Kansas gets more than a double share of them, and scientists are trying to find out why these sky clinkers so pick on this particular state. As they have never yet found out why cyclones do the same thing, it looks as though they would have to let it go as it is and stand by the question once asked by William Allen, "What's the matter with Kansas?"

P. MARK THOMAS.

We recently learned in the Star's "Fifty Years Ago" column that efforts were made far back to solve the smoke problem. So if the eclipse of the sun was not what it might have been this morning because of the smoke, it is unlikely that in the 219 years until the next eclipse anything will be done to make that one any easier to see than this.

S. A. S.: Seen from bedwar car, near Jefferson:

Garug furint:

I know it was not always being correctly pronounced, but I thought we could all spell it.

<p

TO PROSECUTE GIRL SLAYER

\$10,000 GOING UP

TO HEAD BIG GUM CONCERN

1

Sales—Security High Low Close Prev.
bonds represent \$10,000 face value each.

INDUSTRIALS

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The Golden Bed

by WALLACE IRWIN

FORTY-SIXTH INSTALLMENT.

THE other bank . . . just by that span of waters had his life been changed; he could see faint lights in the trees and imagine that they came from the settlement where he was born. He might have remained to improve the soil and to marry one of the neighbor's girls. Would he have been happier? Pa Holtz hadn't been happy. Men who drink alone of stone jugs and deny God—possibly for very fear of God's wrath—weren't happy. No, that wasn't the solution.

Toward a wharf downstream the Little River Ferry was plying her way. An ugly thing by daylight, under the quiet stars she was a royal barge, lit for a festival. Her mast-light twinkled daintly on high like the jeweled tip of a wand. Presently she bumped the wharf and began the noisy business of disgorging passengers. Roustabouts shouted, crates banged, hogsheads bumped, a woman laughed. Then along the planks came the klop-klop-klop of a solitary horse. It might have been the sound of Old John's poor tired hoots, blundering along with no more knowledge of life's meaning than dwelt in Admah Holtz that night of his undoing.

The fight ain't over, not by a long shot, he decided, and broached his hated fists down on the table, grunting. My liquor's dyin' in me, and I reckon that's a good thing. I'll go back to town and get a room at the Hamilton. I've got a thing or two to say out in meetin' tomorrow that'll put a crimp in the Jules Icariot Club. Too bad, though, that Atterbury saw me comin' out of the Pickwick that way. But he can't do a thing without me. His hands are tied, and I'll show him just where. And Flora Lee—she's had a tantrum, she'll be back. But I'm goin' to shoot that man O'Neill.

He had half scrambled to his feet and would have arisen had not an aspect of the water, directly under the pier caught his eye and fascinated him with superstitious conjectures. Under the stars it seemed animate, like a drowning man, tattered and gray-haired, beating himself to death against the rough timber. Admah had opened his dry mouth to call when he saw the true cause of his alarm. Just a wave from the ferry boat, striking the piles.

But it had given him a start, and with it an awful thought had come. Pa Holtz had fallen into the river, just by accident, because he was drunk. He'd been drunk, all right, but this preacher who preached the sermon and the neighbors who had come to shake Ma by the hand hadn't told her right. Admah saw it clearly now; the steep bank with the edge below and Pa Holtz, smoking his pipe, waiting for darkness. That's the way to clean the slate—when you can't make head or tail of the figures, just rub 'em out. Fascinated by this easy thought Admah crawled on all fours to the very edge of the wharf and poised there an instant like a gargoyle . . .

"Hey, mister!" he explained with a ghastly smile to ward the specter named Zeb. Then his attention turned to a quarrel at the other end of the room. "Hey, you niggards! I tol' you onct an' I ain't goin' tell you agin'."

Already Zeb had reached hungrily for the bottle. He poured his tumbler full to the brim and was raising it to his hairy lips when Admah spurned him like a blowfly.

"Take it away! Over there! he pointed to a vacant table in a remote corner. The scarecrow, waiting for darkness, that's the way to clean the slate—when you can't make head or tail of the figures, just rub 'em out. Fascinated by this easy thought Admah crawled on all fours to the very edge of the wharf and poised there an instant like a gargoyle . . .

"Hey, mister!"

The challenge, thin and drawn, brought him nervously upright. Something twisted and shaggy like a scarecrow approached him through the dimness.

"Mister, ef we ain't keerful ye're liable to 'drop off,' persisted the thin voice which sounded as though it came from a body without lungs. "I reckon so," agreed Admah, guiltily conscious that the intruder had guessed his temptation. He saw a face, scabby and twisted as the body beneath it.

"Te don't belong on this yer wharf no m'n I do," whined the specter. "But y' ain't the kind that rides free like po' folks does. I got a free pass on the boat. Tee-dar. Right smart of a boat, but dark. His jaws seemed to crack with dryness. "Ain't got a chaw of tobacco on yer clothes?"

Admah found a cigar which he gave to the man. "Seegar! Goeshamighty!" He bit it in two and chewed disgustedly. "It's a shoo nuff dry spell, ain't it, mister?"

"Where do you get your liquor?" asked Admah thickly. He recognized the man as one of the water rats who spend their summer in leaky huts along the flats and are flooded out with river-rise in spring.

"Y' ain't tellin'?" The water rat winked his little oozy eyes in Admah's face.

CHAPTER 77.

They plumped ahead through a sort of alcoholic fog. Through coal yards, past warehouses, up one alley, down another, round ridiculous whitewashed corners that smelt of open sewage; it was as though a corpse had arisen to guide Admah into some unclear mischief or to show him such another troll-dance as Peter Gynt witnessed when he threw away his soul.

At last the water rat stopped and put his hand on Admah's arm, causing him to wince. Suddenly he realized how Flora Lee must have felt when he touched her. He was aware of a crooked door with light shining through its warped top. Rap-rap, and a terrible voice spat out, "Who there?" "Jes Zeb, Molly. Me an' a feller."

The door opened cautiously and fat, evil old woman stood framed in sooty light against a background of discordant sounds; a hushed growling as though her den contained wild beasts that had been beaten and scared.

"Come awn in an' shet the do," she commanded.

WALLACE IRWIN

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Love Thy Neighbor— But Don't Get Too Friendly

—By Hanlon



What to Serve Tomorrow . . .

BREAKFAST

Grapefruit

Cereal

Scrambled eggs

Crisp bacon

Cinnamon toast

Coffee, coco, milk

DINNER

Clear soup

Celery—olives—pickles

Roast beef

Browned potatoes

Brussels sprouts

Marshmallow pudding

Cake

Coffee, tea, milk

TEA

Toasted cheese sandwiches

Fruit gelatin

Cake

Coffee, tea, milk

CINNAMON TOAST

Cut the bread into slices $\frac{1}{4}$ inch

thick, put them in a toaster and

move slowly over fire until the

bread is dry. Turn it constantly

while toasting until it is a golden

brown in color.

Butter the toast while not and

mix 1 teaspoon cinnamon to 3 tea-

spoons sugar together and spread

over toast. Slices may be cut dia-

gonally to make them look more at-

tractive. Keep hot until ready to

serve.

MARSHMALLOW PUDDING

Half pound marshmallows, 2-3

cup nuts, $\frac{1}{2}$ pint cream. Cut

marshmallows into cubes. Put in a

deep dish. Whip cream and add

to marshmallows. Let this set for

two hours. Cut up nuts and add

just before serving.

Philosophical Phrasings

Many a warm argument has led

to a cooled friendship.

Truth never was indebted to a

veracity.

Virtue alone is true nobility.

A good hope is better than a bad

possession.

Fame impatient of extremes de-

cays.

Not more by envy than excess of

praise.

—Pope.

To Revive Velvet

WHEN renovating velvet brush

all the dust, then hold the

right side over steam until

quite moist and iron on wrong side

or the velvet can be thoroughly

soaked by a rust colored spray

of ostrich.

PARIS—The trend of millinery trimmings so far as the small early spring hats are concerned, is well exemplified in one model which has nearly all of them. It is of brown and rust colored ribbon trimmed with a double row of brown pique straw lozenges and surmounted by a rust colored spray

of ostrich.

(To Be Continued.)

A New Way of Cleaning Your Window

NEW YORK.—The

persons who have to clean

windows will be glad to know that a

new window cleaner has been invented

which does away with the danger

of sitting on the sill

outside of a long handle

which is attached to the skirt.

The neck

is made

versus round.

NEW YORK.—The

fashionable

sleeves worn by country

clerks are back in fashion

of the new evening gowns

which are made

of elastic band above

These sleeves, howev-

er, are made separately

and have a body support

which reaches them all or any com-

part of them.

PARIS.—For absolute

cleaning of lace, nothing

is better than

new evening frock lace.

For Alice Delvigne, it is

lace embroidered with

flowers and falls straight

shoulders by rather broad

of self material without

any elastic band.

The neck is rather high

but there is practically

nothing above the waist line.

Rid of Dandruff By

Sicura Shampoos

Sicura, Delvigne and

Delvigne Laboratories

Paris, France

London, England

New York, U.S.A.

Chicago, U.S.A.

Philadelphia, U.S.A.

San Francisco, U.S.A.

Boston, U.S.A.

Montreal, Canada

Toronto, Canada

Montreal, Canada

DOUBLE PAGE FOR WOMEN

ST. LOUIS POST-DISPATCH, DAY, JANUARY 24, 1925.

et Too Friend —By Hanlon



What Money Cannot Buy

By Sophie Loeb

ATE AFTERNOON. The people hurrying

To and fro; hither and

thither; to sadness; obsequies;

Dark, unkempt, sordid streets;

Winding unevenly into other corners.

Crowds, congestion, seething close together—

Block'd. Human flocks of sheep

Follow'd in similar paths

Remoul'd taking from life

What seem snatches,

Undergo and harrowing hearts—

All claim goal—to make money.

And in all the hope

Of whining.

One who winds his way

Through long throng

And a blackened entry-way;

Climb'd on stairs that creak and bend—

Yet, now, goes two at a time;

The doors scream of delight—

And a tired one is lifted

On a chair.

And a maid a woman—

Plain, and loving.

Sophie poor,

The room assumes the glamor

Of a palace of a peer.

Hot food—but simple—

A gladsome meeting of three.

A trinity of joy.

The end of the day and a

The true love of a woman;

The clinging arms of a child;

Born of pain and pleasure—

But always together.

No money on earth can buy

This kind of love.

FASHION FRILLY

A New Way of Cleaning Your Window

NEW YORK.—The coat latest ensemble suits shown are called seven-eighths, because they are almost as close to cent as ivory soap. That is almost identical with the skirt. The neck line dress beneath them is almost vertically round.

NEW YORK.—The black sleeves worn by country clerks are back in fashion. of the new evening gowns have attached sleeves of exactly design, which are held up by elastic band above the waist. These sleeves, however, are crepe satin, beautifully creased.

PARIS.—For absolute silence, nothing would surpass this evening frock just come for Alice Dellys. It is of lace embroidered with multiple flowers and falls straight from the shoulders by a broad band of self material, without a seam. The neck is rather high in the back, and the waistline is above the waistline.

Rid of Dandruff By

Curia Shampoo

Curia Shampoo

Blue-jay

HELPS FOR THE MOTHER

BY EMILIE HOFFMAN.

THE newlyweds had a serious quarrel and just because friend husband never awakened in time to reach the office at the required hour. He complained he was "getting in bad with the boss."

This husband considered it a wifely duty to arouse him on time. It so happens that wifey is a good sleeper herself in the early morning hours and she "can't see, anyway, why a man should depend upon his wife to do alarm-clock duty."

Hubby contended he was used to being awakened and he guessed if his mother could get up every morning and call him, his wife could do the same—and so on.

We all know mothers who are doing just these things to their boys and girls. It is a very foolish mother who thinks her children will appreciate her efforts if she makes them depend upon her.

On the contrary, they will resent their inability to do things for themselves when they are left to their own resources.

The young man whose mother has waited upon him and has always purchased his wearing apparel is helpless when he gets away from home and must depend entirely upon himself.

A young girl was a trial to her teachers at college because her clothing was always scattered about her room and she, herself, presented an untidy appearance. The girl keenly felt her deficiency and shed tears over it, but seemed unable to improve.

"I just don't think about those things," said the discouraged girl, "because mother always did them for me."

When mother buttons sister's coat or helps Junior on with his rubbers, she does not realize she is robbing her children by making them dependent upon her. The rubbers may be hard to put on, but let Junior make the extra effort himself. It will make him more manly.

Do not search for his cap or gloves even if he is in a hurry for school. Never do for a child what he or she can do themselves.

A 5-year-old went visiting, and the first morning the hostess came into the child's room to assist her in dressing. She was astonished to find the little girl had taken a bath, combed her hair and was all dressed for breakfast.

What a saving of time this is for the mother! Children thus trained from babyhood do things for themselves as a matter of course, and they invariably have more consideration for mother than do those children who are continually waited upon by indulgent mothers.

FAMOUS WOMEN

JUANA INEZ DE LA CRUZ.

JUANA INEZ DE LA CRUZ was born in November, 1651, a few leagues from the City of Mexico. Her father, a Spaniard seeking wealth, had established himself in America, where he married a lady of the country, but of Spanish extraction. Their daughter, Juana, displayed in early life a passion for letters, also an extraordinary facility in the composition of Spanish verse. At eight years of age she was placed by her parents with an uncle who resided in Mexico, and who caused her to receive a very excellent education.

Her talents attracted notice and distinction, and caused her to be received into the family of the Viceroy, Marquise de Mancera, at the age of 17.

It seems that her patrons, filled with admiration and astonishment by the powers and attainments of their juvenile protege, determined to prove the extent and solidity of her erudition, so they invited 40 of the most eminent literary characters of the country to assemble and examine Juana. In the different branches of learning and science, Questions, arguments, and problems were proposed to her by the several professors in these branches—mathematics, history, philosophy, poetry, theology, to all of which she answered with equal readiness and skill.

She lived 44 years, 27 of which she passed in the convent of St. Gerolimo (where she took the veil). She sold many of her books to relieve the poverty and distress in her environment. Her works were collected in three quarto volumes.

LONDON.—The prevalence of long sleeves has brought forward a new glove with long stiff narrow gauntlets which are worn over the outside of the window. The two felt pads are attached, to wash the window and the dry it. This device permits the person to stand on the sill and clean the window on the inside. The cleaner is long enough to reach every portion of the glass.

NEW YORK.—The blouse design, which are held up by elastic band above the waist. These sleeves, however, are crepe satin, beautifully creased.

PARIS.—For absolute silence, nothing would surpass this evening frock just come for Alice Dellys. It is of lace embroidered with multiple flowers and falls straight from the shoulders by a broad band of self material, without a seam. The neck is rather high in the back, and the waistline is above the waistline.

Blue-jay

Today's Winning Puzzle

FINAL PRIZE PUZZLE

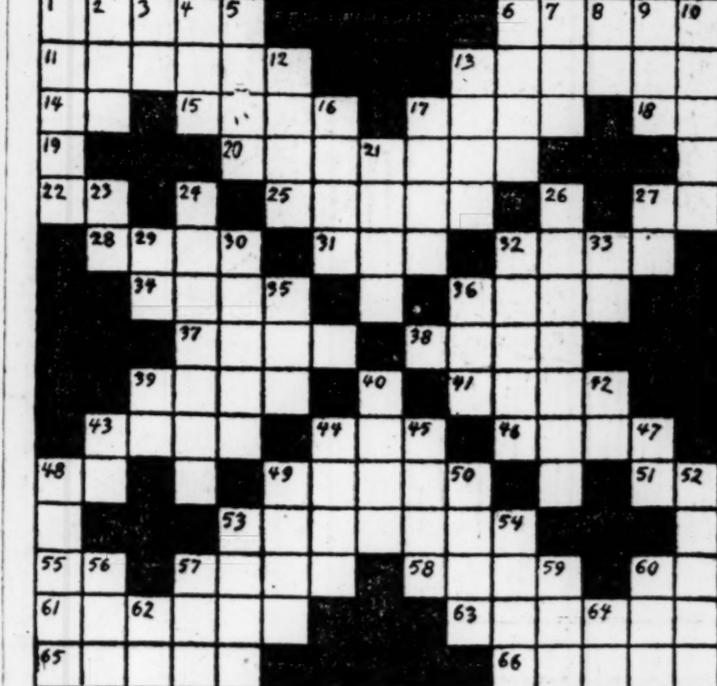
The puzzle printed below wins the prize of \$10 offered daily by the Post-Dispatch for the most original cross-word enigma submitted to the paper. It was contributed by H. Poelking, 5325 Arlington Avenue, St. Louis. The solution of this puzzle will be printed Monday. This puzzle is the last of the prize cross-word puzzles.

Each number in the puzzle indicates the position of the first letter of a word.

Each word reads from left to right (horizontal) or downward (vertical), according to position. Lettered in correctly, words that cross will interlock.

Each number in the white squares also refers to a definition in the accompanying table.

Each definition suggests a word possessing the exact number of letters fit the white space allotted to it.



HORIZONTAL

- 1 A cosmetic
- 2 To chop
- 3 Beautiful
- 4 To forgive
- 5 Personal noun
- 6 Armhole
- 7 Painful
- 8 Eastern state
- 9 Proclaims
- 10 A continent (abbr.)
- 11 Article of furniture (pl.)
- 12 A preposition
- 13 A lake
- 14 Day of the week (abbr.)
- 15 A dish
- 16 Despise
- 17 An animal (abbr.)
- 18 Proclaims
- 19 A continent (abbr.)
- 20 A barrier
- 21 Far away
- 22 Man's name (abbr.)
- 23 Printed's measure (abbr.)
- 24 Crushed ore
- 25 A clique
- 26 American Legion
- 27 A girdle
- 28 Bone
- 29 Greed
- 30 To vex
- 31 To wither
- 32 Curvatures
- 33 Personal pronoun
- 34 Elongated fish
- 35 A guide
- 36 Fat of beef
- 37 A parent
- 38 A skillful
- 39 To draw out
- 40 Joints
- 41 A mure
- 42 Printer's measure (abbr.)
- 43 Anno Domino (abbr.)
- 44 Round body
- 45 Curved bones
- 46 An article
- 47 Married lady
- 48 A platform
- 49 A guide
- 50 A box
- 51 Southern state (abbr.)
- 52 A platform
- 53 Elongated fish
- 54 Personal pronoun
- 55 Poem
- 56 Small child
- 57 To bind
- 58 An animal
- 59 Again (prefix)
- 60 A credit (abbr.)
- 61 A cursive
- 62 Railroad (abbr.)
- 63 Creditor (abbr.)
- 64 A box

VERTICAL

- 1 Native of Rome
- 2 Metal
- 3 Negative prefix
- 4 Air
- 5 To sketch
- 6 God of war
- 7 Anger
- 8 North western state (abbr.)
- 9 Policeman (colloq.)
- 10 To decree
- 11 Part of the head (abbr.)
- 12 Capsule of a plant (pl.)
- 13 Capsule of a plant (pl.)
- 14 God of love
- 15 Narrow, thin
- 16 Remoul'd
- 17 Remoul'd
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- 19 Remoul'd
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Orange Cake

TIR one-quarter cupful of butter or a substitute until creamy. Beat in one cupful sugar, one and one-half tablespooms orange juice and the grated rind of a medium-sized orange. Sift together one and one-half cupfuls of pastry flour, one-half cupful cornstarch, and one-quarter cupfuls of baking powder. Add alternately to the fruit mixture with two-thirds cupful milk. The batter will be quite stiff. Last, fold in three egg whites beaten stiff and transfer to two oiled layer cake pans. Bake about 35 minutes in a hot oven—375 degrees F. Put together with jellied orange filling.

Jellied Orange Filling—Combine one and one-half cupfuls of orange pulp in medium-sized pieces, with an egg white whipped stiff, one-half cupful powdered sugar and one tablespoom gelatine which has been softened in cold water to cover, then melted over steam. When the filling has begun to stiffen, put it between the cake layers.

Turnips With Sugar

Turnips are sometimes eaten as a sweet entremet in France. Choose tender young turnips, peel and cut into halves or quarters, lengthwise. Brown in a spider, with one-fourth pound of butter and the same amount of powdered sugar. Add two tablespooms of meat juice and let simmer for an hour.

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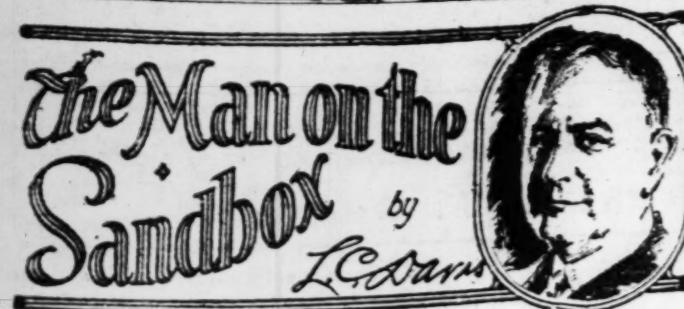
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IN TEXAS.

0 H, the women are on top
In Texas.

The stuff is off with Pop
In Texas.

While the men may wear the
pants,

It's apparent at a glance,
That they haven't got a chance
In Texas.

Mere man, the women say,
In Texas.

Gets merer every day,
In Texas.

With reverent awe
They are all regarding Ma,

But they never think of Pa
In Texas.

Yes, woman is supreme,
In Texas.

And that's no idle dream,
In Texas.

The offices she fills
With furbelows and frills

But Dad still pays the bills
In Texas.

TOO TRUE.

Our representative at the Interna-

tional Opium Conference seems

to have got his dope mixed.

At that the British lion has al-

ways got his tail dragging.

However, according to the laws
of compensation, those who live by
the pipe shall perish by the pipe.

Mint Begins Coining Memorial
Half Dollars."

Probably in memory of the half

habit with him.

KRAZY KAT—By HERRIMAN



CAN YOU BEAT IT?—By MAURICE KETTEN



FAMILY STUFF—DAD PULLS A "BONER"—By FONTAINE FOX

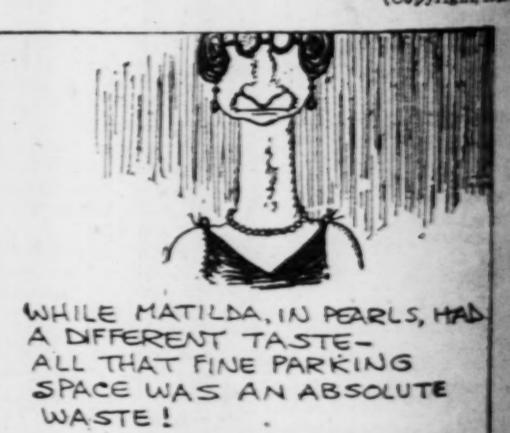


MUTT AND JEFF—A CROSS-WORD PUZZLE HAS NOTHING ON THIS TELEGRAM—By BUD FISHER

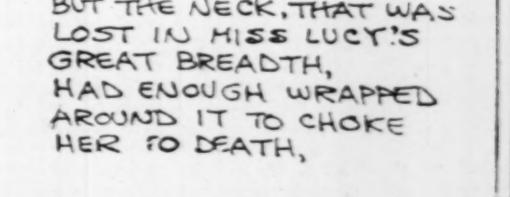
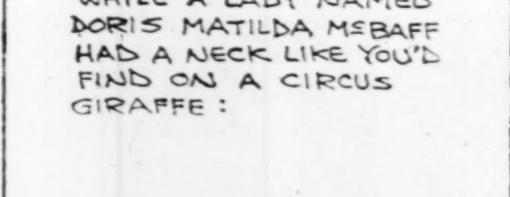
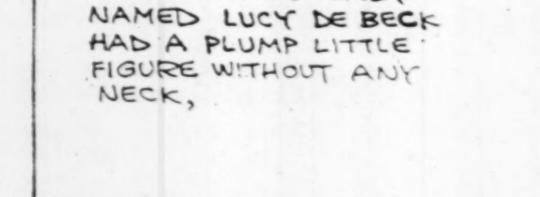


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Trade Mark Reg. U. S. Pat. Office)

LIFE'S LITTLE JOKES—NUMBER 693,004—By RUBE GOLDBERG

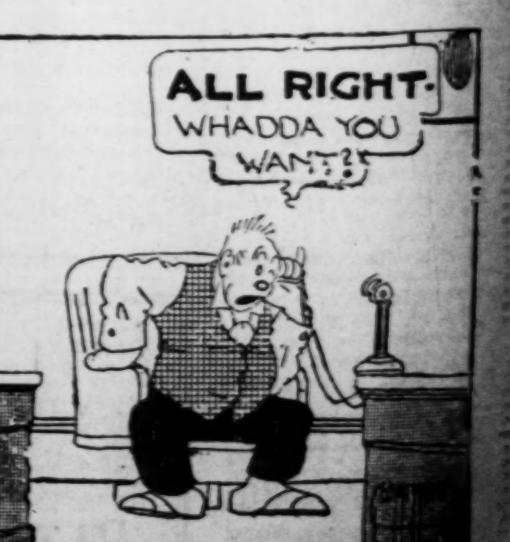


(Copyright, 1925)



R. L. Goldber

BRINGING UP FATHER—By GEORGE McMANUS



GETTING THE FACTS CORRECT—By IRVIN S. CORE.

HIS one originated in England. On the outskirts of a small village in Sussex an automobilist was haled by a local Constable for driving with defective lights on his car.

"I'll 'ave to 'ave your name, sir," said the officer preparing to write out the summons.

"John Smith," said the traveler, truthfully.

"None o' that now," said the vigilant officer. "I want your right

name and address and my foolishness."

"Very well," said the motorist, "if you must have it, it's William Shakespeare, Stratford-on-Avon."

"Thank you, sir," said the satisfied Constable; "now you may proceed."

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ST. LOUIS POST-DISPATCH

WEEKLY RADIO SECTION

BROADCASTING PROGRAMS OF PRINCIPAL CITIES

Section of the ST. LOUIS POST - DISPATCH

SATURDAY, JANUARY 24, 1925.

A RADIO FORECAST FOR 1925

Delivered Through Station WJZ,
New York.

By ORRIN E. DUNLAP JR.,
Radio Editor of the New York Times.

MANY radio listeners may wonder how radio improvements expected during the coming year will affect their receivers. One of the first questions that occur to a man who buys a radio seems to be, "How long before my set will be obsolete?" A brief review of the developments of the past year gives a good basis for a 1925 radio forecast.

The outstanding radio events of 1924 have been pictures transmitted across the Atlantic; the development of short-wave transmission and Marconi's beam or directional transmitter. Two methods of radio photography have been demonstrated, the Jenkins and Tammel systems. Improvements are to be expected during the coming year, not only in the transmission of photographs but in the evolution of radio moving pictures. However, it is not expected that the World's Series of 1925 will be seen in homes throughout America by radio. This is an event for future years. The development of short-wave transmission has opened up a new field for research. This field gives more channels in the ether and, therefore, relieves congestion and interference. It has been discovered that much less power is required when short waves are used. Marconi's beam transmitter employs short waves from 32 to 100 meters. It reflects the waves in a definite direction just like the reflector of a lamp or lighthouse. It concentrates light and flashes a beam instead of spreading it in all directions.

Marconi predicts that the powerful long-wave wireless stations now using alternators and arcs will soon be succeeded by short-wave beam transmitters, which conserve energy.

During November signals transmitted on a 51-meter wave length from a low-power station in Australia were successfully received in England.

During the past ten days trials have been successful from Poldhu with Canada, the United States, Brazil, Argentina, Australia, and, for the first time, with Bombay, India, and Cape Town, South Africa. The power used was 15 kilowatts. The results fully confirmed expectations.

It is claimed that the information gained will render possible the installation of comparatively low-power stations capable of establishing and maintaining commercial services by day and night between England and the most distant parts of the globe.

The low cost of the system, both in capital and running expenses, compared with that of the existing type of stations, should facilitate a reduction in telegraphic rates for all long-distance communications, besides making direct communication with some of the smaller outposts of the world commercially remunerative.

Marconi anticipates the early arrival of the day when the practical range of broadcasting will be increased enormously; and American stations, for instance, will be heard in England with clearness and regularity during the day, instead of only late at night, as at present. It is also quite reasonable to expect that it will soon be possible for an important speech to be broadcast even to the most distant parts of the world, whether it is made during the hours of daylight or darkness.

The radio industry has grown rapidly in 1924. Sales this winter are calculated to be 300 percent greater than last season. It is estimated that today there are close to 5,000,000 receiving sets in the United States; 1,000,000 in England and 100,000 in Canada. The Department of Agriculture estimates there are 375,000 receivers on farms, which is an increase of 155 per cent in a year.

The industry is more stabilized than it was a year ago. The great crowds that attended the radio shows in New York, Chicago, Boston and Buffalo this fall indicated clearly that radio has gained thousands of new followers since January, 1924.

As broadcasting has widened its scope

and gained more followers, so has the radio industry developed. The business spark sets will not be a great annoyance.

According to the Copper and Brass Research Association, a survey of the radio field, estimates that the business of the radio industry for 1924 will reach the \$300,000,000 mark, and within two or three years sales will reach the \$500,000,000 mark.

A vacuum tube manufacturer estimates that sales of tubes alone for the present year will total in excess of \$50,000,000, while one of the leading parts manufacturers estimates that as much as \$250,000,000 will be spent for radio parts and sets. Sales of dry cells and batteries are placed at \$15,000,000.

According to figures compiled by the American Radio Association, a survey made by that organization reveals that there are more than 3000 manufacturers of radio supplies in the United States, ranging from the manufacturers of complete sets and tubes to coils and other parts.

There are about 1000 distributors and 27,000 retailers. More than 250,000 persons are connected directly or indirectly with the manufacture and distribution of radio supplies. Judging from the volume of business done so far this year, it is calculated that the business will aggregate \$300,000,000 for the year 1924.

There are now 550 broadcasting stations in the United States and close to a total of 1000 broadcasting stations in the world; 18,000 amateur transmitters in the United States and about 16,000 ship and shore commercial stations.

Since November, 1920, there have been 1180 radiophone stations, 630 of which have stopped broadcasting. In 1922, 250 stations opened and before the year closed 294 out of the total in operation discontinued broadcasting. Up to Dec. 1, 1924, 250 new stations had opened and 233 had signed off for the last time.

Four years ago the radio industry was not considered of sufficient importance to give it an individual classification in the field of business. It was grouped under electrical products, along with electrical toys. When broadcasting started many hailed it as a fad. Today it is considered one of the first 40 industries of the United States, and the sales of radio equipment are not likely to reach a saturation point for at least 10 years to come.

Business in radio circles during the past summer has shown an increase of 50 per cent.

The number of stations is on the increase, so much so that Secretary Hoover has abandoned the plan suggested by the third national radio conference to allocate new wave lengths. He is in hopes that some of the stations will stop broadcasting during the coming year, and it is such in the case the interference problem may be automatically solved.

There are now 83 class B stations. The end of 1923 finds many of the stations increasing power to 1500 watts and some as high as 5000 watts.

Several leaders in the industry have suggested super-power broadcasting stations radiating 50 kilowatts and higher. Definite plans regarding the construction of such a station are likely to be announced before the close of 1925.

International broadcasting is not much further advanced than it was at the beginning of the year. Only fragments of waves from nine American stations out of 550 were heard in England during the international tests in November and several of them used eight and ten kilowatts. Reception of European stations on this side of the Atlantic was nothing spectacular. Until super-power stations are built international broadcasting is not likely to amount to much.

There is less trouble from interference now than a year ago. Many of the old spark sets are being replaced by vacuum tube transmitters, which do not interfere with broadcast listeners. It is understood that new installations will continue to be made throughout

the 1925, so that the code interference from ton, and WBZ, Springfield, to pick up the New York broadcast and send it over the South and New England.

There are more toll stations "on the air" now than a year ago. These stations receive pay for broadcasting indirect advertising material. There is much more advertising matter vibrating in the ether today than last year.

It was the opinion of many last year that a fund would be necessary to pay radio entertainers. Several funds have been started for individual stations, but they have all been abandoned because of insurmountable difficulties. The contributions were returned to the subscribers. It is apparent that a fund for an individual station cannot be successful. It is still believed by many that such a fund is necessary to get the best of talent for broadcasting. It may be that a plan will be developed which will take care of all stations in the metropolitan district. Chicago might have another fund and Philadelphia another, but there would be little to be gained for Chicago listeners contributing to a New York fund.

The trend now seems to be for complete sets rather than parts. This fact may lead the radio business from the many small radio shops to the music stores. People are not assembling as many sets at home as they did one or two years ago. This is attributed to the fact that complete receivers are less expensive than they were at first and, furthermore, they can now be purchased on time payments. There will be more combination radio-phonograph sets in operation at this time next year than there are today.

The elimination of static and transmission of power by radio are problems to be solved by time. Progress along these lines may be made in 1925.

Radio on trains is a phase of reception that much can be expected from during the new year. Tests made on the Twentieth Century in receiving electric return lead to the prediction that Pullman seats will soon be equipped with headsets so that passengers can hear radio entertainment.

The practicability of receiving messages by radio on a transcontinental, non-stop train is now being tested on the Golden State Limited.

The greatest service radio broadcasting rendered during 1924 was the election returns. It was estimated that the election return audience was the largest that ever tapped the ether. The inauguration of President Coolidge, March 4, will undoubtedly be the outstanding radio broadcast of 1925.

Interconnection of a chain of stations by land wires has been urged by Secretary Hoover to give national distribution to important events. Twenty-seven stations scattered throughout the country broadcast President Coolidge's speech on election eve and demonstrated that such a system was feasible. Undoubtedly more broadcasting on a national scale will be done in 1925, and especially the presidential inauguration.

It is expected that a radio "talk-bridge" will be working across the Atlantic before 1925 closes. It is understood that the installation is complete on this side of the sea and the station at Rugby, England, will be working early in 1925. This will enable a person in New York to pick up the telephone receiver and ask for a number in London, or on board a ship at sea, just as a long-distance phone call is made. The rate for a three-minute chat will undoubtedly be much higher than a three-minute telephone conversation between New York and Chicago.

A survey of radio today shows that

the industry is just getting under way

and the volume of business next year

and for years to come will be ever in-

creasing. Radio renders public service,

entertainment and education. Its possi-

bilities are unlimited. International

broadcasting, super-power, and radio

moving pictures are developments that

can be foreseen. They will open new

fields and create tremendous interest in

ceremonies.

Much can be expected in short wave

transcontinental relaying during 1925.

The new Denver station KCA is in a

good position to relay programs sent

from New York, Schenectady, Pitts-

burgh and Hastings, Neb., over the Rockies

to KGO, Oakland, Cal., for rebroadcast-

ing.

It is also possible for WRC, Wash-

ington, to listen and see through the air.

COMMITTEE REPORTS ON CHURCH VALUE OF RADIO

By THOMAS STEVENSON.

WHAT is the spiritual value of radio and how extensively should it be used in spreading religious teachings?

This is a question to which the Federal Council of Churches is attempting to find the answer.

On the one hand are many who claim that in a spiritual sense radio is a blessing to shut-in and old folks who are unable to leave home as well as to farmers who live in isolated communities and have but few opportunities for attending regular church services.

On the other hand are many others who doubt the spiritual value of radio.

They assert that many people who ordinarily would attend church remain at home and follow the services by radio, under which circumstances the prayers lost most of their value, the family is confirmed in habits of personal inde-

pendence and the church and pastor lose.

The radio is a mighty agency for good.

(Continued on Page 8.)

Deresnadyne Circuit With New Improvements,

By HARRY J. MARX.

TOWARDS the end of the last radio season, considerable interest was aroused by the introduction of a method of controlling oscillation in tuned radio-frequency amplifiers known as "deresonating the plate circuit." Its unusual efficiency and selectivity, even in the larger cities where interference is overpowerful, created considerable demand for more details, although the season was the time when vacation meant more than building radio sets. This season, E. F. Andrews starts us with a still further improvement both in the circuit and in the design of the inductances. That the improvements are worth while is amply demonstrated by the performance of the set. During the International Week Tests, this set did more than merely "get" Europe. The full programs, including the call letters of the stations, were clearly and distinctly heard over the loud speaker. And this in a city where regenerative-set interference was vehemently criticized.

It will probably be best to just rapidly touch on radio-frequency amplification with its advantages and disadvantages before taking up the "Deresnadyne" principle and its improvements. Tuned radio-frequency amplification is by no means new, but it is only in the last two years that practical methods were developed to overcome certain characteristic difficulties.

The principal difficulty has been the tendency of the tubes to go into self-oscillation. The methods used in controlling this characteristic furnishes the various classifications of tuned radio-frequency amplifiers. To properly explain this oscillation without resorting to considerable technical analysis becomes a difficult matter. It is commonly understood that in a vacuum tube the grid is a control device requiring but a very small amount of energy to operate the flow of a decidedly greater amount of energy which flows in the plate circuit. Between this grid and plate there exists a capacity just as between the plates of a condenser, only the value is very small. However small, and because it is impossible to eliminate it in the construction of the tube, it provides a source or path for the leakage of some of the excessive current or energy from the plate to the grid. It might be well to state that not only does this occur inside the tube, but in a poorly designed set, through electro-magnetic coupling or capacity between wires or even apparatus further leakage paths are introduced. When the energy in the plate circuit becomes sufficiently high, part of this energy is transferred back to the grid circuit controlling the oscillation of the grid instead of allowing the grid to be controlled by the incoming signals. In this condition the tube becomes a little transmitter. This action, called self-oscillation, is what happens when the set starts whistling a little time of its own.

It is, of course, the aim of those who build tuned radio-frequency receivers to get as high a degree of amplification as possible. The receiving may, however, be kept from oscillating if the signal will be so distorted that no one would care to listen to them. All radio fans know that tuning a radio circuit reduces its resistance and therefore gives a louder signal. This is true of both the grid and plate circuit of a tuned radio-frequency amplifier, but unfortunately, if the plate circuit is tuned, oscillation will occur unless losses are introduced in some manner.

One means of preventing self-oscillation is to put a resistance in the grid circuit to use up the excess energy. This can be done by a potentiometer to change the grid bias by an absorption circuit tuned or untuned coupled to the grid coil. Unfortunately, introducing resistance by any of these methods reduces volume and destroyed selectivity besides making the set difficult to control. A more popular form by which the excess energy in the plate circuit can be pre-

vented from causing oscillation is the neutrodyne method, in which part of the plate-circuit energy is reversed and brought back to the grid circuit to oppose and neutralize the energy passing through the grid-plate capacity of the tube. Although this method is quite effective, it has so far been necessary to sacrifice amplification at the higher wave lengths because the neutralizing effect changes somewhat with the tuning. The tone quality of the neutrodyne is also not good and the great difficulty of securing proper neutralization makes it rather impractical for the home builder.

The fundamental reason for self-oscillation is just as much the amount of voltage across the plate circuit as it is the capacity between the plate and grid of the tube. The neutrodyne prevents it by counteracting the effect of the tuning capacity. The Deresonadyne principle is to allow only the minimum amount of energy to be generated in the plate circuit which can be used for undistorted amplification. Instead of building up more energy than can be used in the

supporting the coil winding is so placed that the heating losses are almost eliminated. The high-inductance value is proven by the fact that .00025 mfd variable condensers are used for tuning over the entire wave-length range. Figure 2 shows the Andrews Paddle Wheel Inductance as used in the Deresonadyne circuit shown in Figure 1. While the fan is encouraged to build his own set if he so desires, patent applications prevent the manufacturer of it.

Parts Required and Panel Layout.

In building the set, the first point of importance, after the circuit is understood, is the selection of the parts required. It is useless to take particular pains in getting the best of some parts and then neglecting the rest by buying the first thing that is offered. Low-loss variable condensers have been discussed which is the best of the two, for it has almost become fanatical on the subject.

How many are taking the same pains in purchasing their audio-frequency transformers? Don't buy the maximum ratio type, unless you are willing to accept distortion as a price for volume.

Low ratios will always give you good quality amplification.

A little shielding between the variable condensers and the panel will do lots of good, so don't leave it out because it adds a little more work. Have you ever stopped to consider how many manufactured sets use shielding? The manufacturer wouldn't put it in if it wasn't worth while.

In buying fixed condensers, get good ones. Cheap condensers rarely are accurate in capacity value. If you were buying a tire for an automobile, would you buy one from a firm who guessed at the size and then let you try it out to see if it would fit the wheel? By-pass condensers must pass a specific current, changing the capacity may limit the functions they are intended for. In buying tube

plate circuit and using the excess to stop oscillation, the Deresonadyne principle prevents this excess energy from ever being generated. Amplification is fully as great as in the neutrodyne, but it is stopped at its source, in this simplest and most effective way. This result is accomplished by detuning, or deresonating, the plate circuit. The number of turns in the radio-frequency transformer are reduced to such a point that maximum signal strength is obtained without oscillation. In this condition, the plate circuit is not resonant to the signal being received and to which the grid circuit is tuned.

Due to the increased tendency to oscillate at lower wave lengths, it is necessary to provide some means to prevent the voltage across the plate circuit from increasing as the set is tuned to receive the lower wave length station. There are several ways by which this can be accomplished. One of these is the use of the plate-balance control to lower the plate voltage. Another is the use of frequency tubes, as lower wave length stations are tuned in. This method will be described later on. Although these methods are the subject of several patent applications, their free use by the home builder is encouraged.

The efficiency of the circuit as a whole depends to a very great extent upon the efficiency of the coupling coils used in the stages of tuned radio-frequency amplification. Low-loss condenser arguments are often absurd when the efficiency of inductance units is considered. Andrews Paddle Wheel Inductance is a radically new type of radio low-loss inductance unit. In measuring coil efficiency, the highest possible ratio of inductance to resistance is essential. In a coil of this type the insulating material

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In building the set, the first point of importance, after the circuit is understood, is the selection of the parts required. It is useless to take particular pains in getting the best of some parts and then neglecting the rest by buying the first thing that is offered. Low-loss variable condensers have been discussed which is the best of the two, for it has almost become fanatical on the subject.

How many are taking the same pains in purchasing their audio-frequency transformers? Don't buy the maximum ratio type, unless you are willing to accept distortion as a price for volume.

Low ratios will always give you good quality amplification.

A little shielding between the variable condensers and the panel will do lots of good, so don't leave it out because it adds a little more work. Have you ever stopped to consider how many manufactured sets use shielding? The manufacturer wouldn't put it in if it wasn't worth while.

In buying fixed condensers, get good ones. Cheap condensers rarely are accurate in capacity value. If you were buying a tire for an automobile, would you buy one from a firm who guessed at the size and then let you try it out to see if it would fit the wheel? By-pass condensers must pass a specific current, changing the capacity may limit the functions they are intended for. In buying tube

plate circuit and using the excess to stop oscillation, the Deresonadyne principle prevents this excess energy from ever being generated. Amplification is fully as great as in the neutrodyne, but it is stopped at its source, in this simplest and most effective way. This result is accomplished by detuning, or deresonating, the plate circuit. The number of turns in the radio-frequency transformer are reduced to such a point that maximum signal strength is obtained without oscillation. In this condition, the plate circuit is not resonant to the signal being received and to which the grid circuit is tuned.

Due to the increased tendency to oscillate at lower wave lengths, it is necessary to provide some means to prevent the voltage across the plate circuit from increasing as the set is tuned to receive the lower wave length station. There are several ways by which this can be accomplished. One of these is the use of the plate-balance control to lower the plate voltage. Another is the use of frequency tubes, as lower wave length stations are tuned in. This method will be described later on. Although these methods are the subject of several patent applications, their free use by the home builder is encouraged.

The efficiency of the circuit as a whole depends to a very great extent upon the efficiency of the coupling coils used in the stages of tuned radio-frequency amplification. Low-loss condenser arguments are often absurd when the efficiency of inductance units is considered.

Andrews Paddle Wheel Inductance is a radically new type of radio low-loss inductance unit. In measuring coil efficiency, the highest possible ratio of inductance to resistance is essential. In a coil of this type the insulating material

supporting the coil winding is so placed that the heating losses are almost eliminated. The high-inductance value is proven by the fact that .00025 mfd variable condensers are used for tuning over the entire wave-length range. Figure 2 shows the Andrews Paddle Wheel Inductance as used in the Deresonadyne circuit shown in Figure 1. While the fan is encouraged to build his own set if he so desires, patent applications prevent the manufacturer of it.

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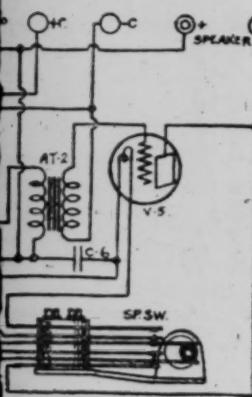
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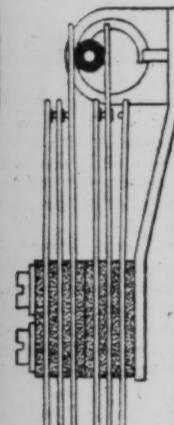


The special switch not only acts as a battery switch but also connects the speaker for one or two stages of radio-frequency amplification as desired. The regular jack system and battery switch can be substituted. No provision is made for plugging headphones, as they are unnecessary; all tuning can be done with the loud speaker.

List of Parts.

1 panel, 3-16x7x24, 1 battery post strip, 3-16x1 1/4x8, 1 ant. and ground post strip, 3-16x1 1/4x22 1/2, 1 selector jack strip, 3-16x1 1/4x24, 1 baseboard, 12x9x25 1/2, 3 pos. metal shielding, 1-32x34x5 1/2, 12 metal spacer tubes, 1 1/2 x 1/4, 1 D. 1/4 O. D. x 1 1/4, 2 midget jacks, 2 midget plugs, 9 binding posts, 1 set 3 Andrews' Paddle Wheel Inductances, 3 variable condensers, .00025 mfd, 2, 3, 4, 5 standard tube sockets, 1 grid condenser with .00025 mfd, 6 fixed condensers, .5 mfd, 1 fixed condenser, .01 mfd, 1 rheostat, 6-ohm, 1 variable resistance, 0 to 200,000 ohms, 1 fixed grid leak, 5 megohms, 1 stage control switch, 1 audio-frequency transformers, low ratio, 3 dials, 4-inch, 1 cabinet, to fit.

The stage-control switch presents interesting features. The illustra-



LOUD FIG. 5

itch Works.

figures 3, 4 and 5, show the OFF, ON and LOUD positions. In the OFF position, the A battery connection is cut off. In turning the knob to the SOFT position, the A battery connection is cut off and the loud speaker is connected to the plate of the tube V-4. When the knob is turned to the LOUD position, the tube V-4 is connected to the antenna through a radio transformer AT-2 and the loud speaker is already in the circuit of tube V-5. In the SOFT position, one stage of audio amplification is used, while the LOUD covers both stages. The Andrews Radio Co. is now on the market a kit of parts for Derezinsky set.

The use of a 1x26-inch panel permits satisfactory spacing of the three variable condensers and the paddle wheel in order to avoid coupling in the radio-frequency stages. Trying to save a few inches of panel stock and crowding parts close together will soon convince the constructor of his foolishness when it comes to operating the set. Compact may be desirable but not at a sacrifice of quality and efficiency.

Tell there are only six units that fit on the panel. The three variable resistors are kept to the left as shown

Including the Latest Paddle Wheel Inductances

In figure 6. The next knob is the variable resistance, then comes the stage-control switch and last the rheostat, which controls the lighting of all five tubes.

Little has been said about the variable resistance called the plate-balance control. In order to secure maximum efficiency at high wave lengths, the paddle-wheel inductances have their primary turns so proportioned as to give maximum amplification without oscillation. A variable resistance is connected in series between the plate coils, and the B battery terminal to prevent oscillation at the lower wave lengths. Across this connection to the negative filament terminal is a by-pass condenser. This condenser prevents any radio-frequency currents from flowing through the resistance—hence the resistance does not broaden the tuning.

This variable resistance provides a means of reducing this voltage and thus the plate-circuit energy. At high wave lengths, with the knob turned to the right, the de-resonance of the plate coil stabilizes the circuit. When turned to the right the resistance is zero. As the tuning approaches the lower wave lengths, and gets closer to the natural resonance point of the plate circuit, the set approaches the oscillation point. Now, by turning the knob to the left, resistance is inserted between the plate and the battery, thus lowering not only the voltage, but also the plate energy, and thus preventing oscillation. By keeping the plug below this oscillation point, the maximum radio-frequency relay amplification is obtained with wonderful clarity of tone. It likewise acts as a volume control.

When the set is completed the following accessories will be required for operation of the set:

Loud speaker.
Five vacuum tubes.
Six-volt storage battery.
Ninety-volt "B" battery.
Antenna and ground system.

Necessary wires for connections.

The tubes should be all of the A type, but be sure you are using good ones. Poor tubes will ruin the best set. A detector tube of the UV-200 or C-300 type is not recommended.

The storage battery should be of a good reliable type, with about 80 ampere-hour capacity, in order to avoid frequent recharging. It would be advisable to buy a good charger for this purpose. The use of dry cells is possible, but will not be found economical.

The "B" battery can consist of four 22 1/2-volt units or two 45-volt units. The heavy-duty type are recommended for maximum selectivity. It is recommended for interference conditions, but increases the volume, whereas, when interference is negligible, then J-3 will give most volume.

This strip carries the three midget jacks J-1, 2 and 3. When the midget plug P-1, connected by a flexible lead to the antenna post, is plugged into J-1, maximum selectivity is obtained. This need only be done when interference is bad, such as may be encountered in very large cities. J-2 gives a little less selectivity for interference conditions, but increases the volume, whereas, when interference is negligible, then J-3 will give most volume.

This strip not only carries the battery binding posts, but also two more midget jacks, not marked, for loud-speaker connections. This facilitates the connections and eliminates the necessity of jacks on the antenna and ground post strip. The tips of the cord are plugged into the two midget jacks. If one of the ends of the cord has a colored thread in the braiding, it should be connected to the jacked marker plus [-] in the picture diagram figure 7.

Before trying to operate the set, it will be well to carefully read over the following points on tuning the set:

1. Turn the stage-control switch knob

grid terminal of the tube socket V-1, 5 to the LOUD position; if during the making electrical connection with it, tuning the volume is too loud, it can be shifted to the SOFT position. When in the LOUD position the rheostat knob 6 will have to be advanced more, as one more tube is connected in the filament circuit.

When a loop is used, connections are made directly to the antenna and ground binding posts, but plug P-3 is taken from jack J-4 and left disconnected, while the plug P-2 is inserted in jack J-4 instead. This takes the coil L-1 from the grid circuit and directly connects the one side of the loop to the grid. The other end of the loop, on the ground post, connects to the negative filament but inside of the rheostat R-1.

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FIG. 8—The Completed Set.

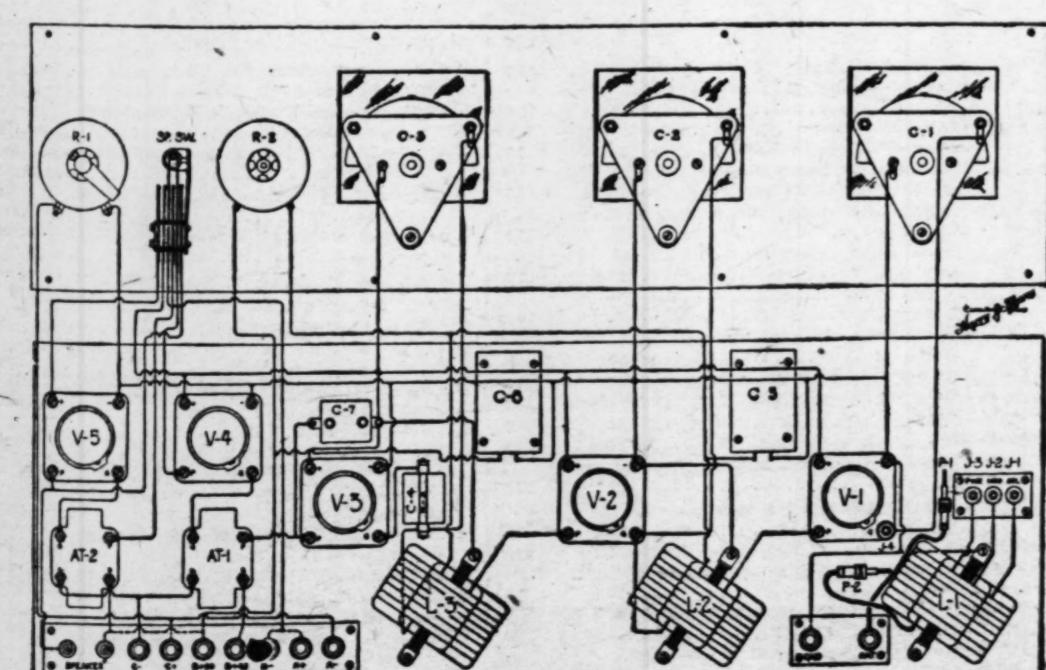


FIG. 7—Arrangement of Parts.

3 slowly, keeping approximately the same number on each dial in line with the indicator line on the panel. This can be done by setting dials 2 and 3, say at 40, then turning dial 1 slowly from 55 to 65. If no station is heard, set dials 2 and 3 at 57 and repeat the operation with dial 1 going from 5 points below the setting to 5 points above. This is done because different antenna slightly affect the setting of dial 1. Proceed with this operation until a station is heard, but don't forget the relative position of knob 4 on different wave lengths.

5. After a station is heard, carefully adjust each of the three dials for best position. Then adjust knob 4 for maximum clearness and volume. Make a record of the dial setting for each station that you tune in and keep it for reference when you want the stations again. This will also provide a guide of the approximate setting for an particular wave length you may wish to tune in for.

6. As was explained before, for greatest selectivity put the antenna plug in selector jack, normally use the medium jack, but when interference doesn't bother you use the volume jack.

Report on Church Value of Radio

(Continued From Page 1.)

The critics say that under such circumstances the prayers themselves lose most of their value, the family is confirmed in habits of personal indolence, and the Church and pastor lose the inspiration which comes from their presence in the sanctuary. This is a matter to be settled by actual experience and we shall be glad to know what the results of this new form of the proclamation of the truth really are."

Arthur E. Hungerford, publicity adviser of the Federal Council of Churches has discussed the radio question with many church leaders in different sections of the country. Here is what Mr. Hungerford thinks about it:

"Most church leaders believe in the possibilities of the radio for extending the teachings of Christ. Many are working on the problem."

"There is hardly a sending station in the country that does not serve the church in some way. In many cities the local church federations arrange regular services and programs and in others individual congregations do the work. Through these methods many persons receive the church message who would not otherwise get it."

"The radio has been a blessing to the shut-ins and old folks who are unable to leave home. It has opened the way for farmers and their families who live in isolated communities and have but few opportunities for attending regular church services to get some of the benefits of the church. Of course, it is far better for a man or woman to go to church when possible, than to hear the sermon over the radio. But not many remain home because they can hear a sermon in the home."

"Probably the outstanding church program on the radio is the Sunday afternoon address of the Rev. Dr. S. C. Cadman, President of the Federal Council of Churches, at the Bedford branch Young Men's Christian Association, Brooklyn, N. Y. That this service is effective is shown by the fact that Dr. Cadman receives hundreds of letters from his hearers. Most of them ask for spiritual advice and consolation. Dr. Cadman keeps a stenographer busy answering them."

"The possibilities of radio services to the churches failed to realize the possibilities and opportunities of the motion picture until they had become entirely commercialized and it was too late for the churches to take advantage of them. The same mistake will not be made regarding the radio. Dr. Cadman and his work prove this. The church will make great advances during the next few years and radio will play a big part."

(Copyright, 1925.)

Complete List of Broadcasting Stations in

THE wavelengths here given are up to date as of Jan. 22. The Department of Commerce recently has been assigning new experimental waves to some stations. This list therefore may be subject to changes, which will be published in the Post-Dispatch as they are made.

*Indicates experimental wavelength.

Station	Owner and Location	Wave Length	Power Meters	Power Watts
KDKA	Westinghouse E. & M. Co., East Pittsburgh, Pa.	300	*1000	
KDPM	Westinghouse E. & M. Co., Cleveland, O.	270	500	
KDPT	Southern Electric Co., San Diego, Cal.	244	50	
KDYL	Newhouse Hotel, Salt Lake City, Utah	250	150	
KDYM	Savoy Theater, San Diego, Cal.	280	100	
KDYZ	Oregon Institute of Tech., Portland, Ore.	360	10	
KDZB	F. E. Siebert, Bakersfield, Cal.	240	100	
KDZC	Rhodes Co., Seattle, Wash.	270	100	
KFAD	McArthur Bros. Merc. Co., Phoenix, Ariz.	360	400	
KFAE	State College, Pullman, Wash.	320	500	
KFAJ	University of Colorado, Boulder, Colo.	261	100	
KFAR	Studio Lighting Co., Hollywood, Cal.	227	100	
KFAU	Boise High School, Boise, Idaho	227	150	
KFAW	Radio Dean, Santa Ana, Calif.	280	10	
KFBF	F. A. Buttry Co., Havre, Mont.	275	50	
KFBC	W. K. Azbill, San Diego, Calif.	278	20	
KFBG	First Presbyterian Church, Tacoma, Wash.	360	50	
KFKK	Kimbark, Upson Co., Sacramento, Calif.	283	100	
KFPL	Leese Bros., Everett, Wash.	224	10	
KFPU	The Cathedral, Laramie, Wyo.	283	50	
KFPC	Nielson Radio Co., Phoenix, Ariz.	238	10	
KFCC	First Congregational Church, Helena, Mont.	243	10	
KFCE	F. A. Moore, Walla Walla, Wash.	256	100	
KFCL	L. E. Rice, Los Angeles, Calif.	226	500	
KFCP	R. W. Flyare, Ogden, Utah	360	25	
KFCV	F. Mahaffey, Houston, Tex.	360	50	
KFCY	Western Union College, Lemars, Ia.	252	50	
KFNY	Central High School, Omaha, Neb.	258	100	
KFDD	St. Michael's Cathedral, Boise, Idaho	252	10	
KFDH	University of Arizona, Tucson, Ariz.	268	50	
KFDJ	Oregon Agricultural College, Corvallis, Ore.	360	50	
KFDL	Knight Campbell Co., Denver, Colo.	226	5	
KFDX	First Baptist Church, Shreveport, La.	250	100	
KFDY	State College of Agriculture, Brookings, S. D.	273	100	
KFDZ	J. O. Iverson, Minneapolis, Minn.	251	5	
KFEC	Metropolitan & Frank Co., Portland, Ore.	248	100	
KFEL	Winner Radio Corp., Denver, Colo.	254	50	
KFEP	Auto Electric Service Co., Fort Dodge, Ia.	231	10	
KFEX	Augsburg Seminary, Minneapolis, Minn.	261	100	
KFEY	Bunker Hill & Sullivan, Kellogg, Idaho	360	10	
KFEP	First Baptist Church, Mohery, Mo.	260	50	
KFEP	State Journal, Sparks, Nev.	226	10	
KFFV	Grace College, Lamoni, Ia.	250	100	
KFEP	Louisiana College, Alexandria, La.	275	50	
KFPG	Louisiana State University, Baton Rouge, La.	254	100	
KPGD	College for Women, Chickasha, Ok.	248	200	
KPGH	Leland Stanford Junior University, Stanford, Calif.	273	500	
KPGQ	Crary Co., Boone, Ia.	226	10	
KPGX	First Presbyterian Church, Orange, Tex.	250	100	
KPHA	Western State College, Gunnison, Colo.	252	50	
KPHJ	Fallon & Co., Santa Barbara, Calif.	350	100	
KPHL	Penn College, Okaloosa, Ia.	249	10	
KPHR	Star Electric and Radio Co., Seattle, Wash.	243	100	
KPIS	Benson Institute, Portland, Ore.	248	100	
KPIS	North Central High School, Spokane, Wash.	252	50	
KPIQ	First Methodist Church, Yakima, Wash.	278	50	
KPIU	Alaska Electric Co., Juneau, Alaska	226	10	
KPTX	Church of Latter Day Saints, Independence, Mo.	268	250	
KPZI	Dairy Commonwealth, Fond du Lac, Wis.	273	100	
KPJE	Marshall Electric Co., Marshalltown, Ia.	248	10	
KPJE	National Radio Co., Oklahoma City, Ok.	261	25	
KPJK	Liberty Theater, Astoria, Ore.	252	10	
KPKJ	Delan Radio and Electric Co., Bristow, Ok.	233	100	
KPKJ	University of North Dakota, Grand Forks, N. D.	280	100	
KPKJ	Dixon & Son, Stevensville, Mont.	263	50	
KPKJ	State Teachers' College, Cedar Falls, Ia.	258	50	
KPKY	Townall Radio Co., Fort Dodge, Ia.	246	50	
KPKZ	Texas National Guard, 112th Cavalry, Fort Worth, Tex.	254	20	

Station	Owner and Location	Wave Length	Power Meters	Power Watts	Station	Owner and Location	Wave Length	Power Meters	Power Watts	Station	Owner and Location	Wave Length	Power Meters	Power Watts
KPKF	State Teachers' College, Greeley, Colo.	273	50		KFRH	M. N. Monsen, Grafton, N. D.	268	10		WBZ	Westinghouse E. & M. Co., Springfield, Mass.	250	10	
KPKB	Brinkley Jones Hospital Association, Milford, Kan.	256	500		KFRJ	Guy Simmons Jr., Conway, Ark.	250	10		WBAA	Purdue University, West Lafayette, Ind.	240	10	
KPKQ	Conway Radio Laboratory, Conway, Ark.	250	10		KFRM	J. F. Boland, Fort Sill, Ok.	263	10		WBAN	Wireless Phone Corporation, N. J.	250	10	
KPKU	University of Kansas, Lawrence	275	500		KFRN	M. L. Short, Hanford, Calif.	224	5		WBBO	James Millikin University, Ill.	250	10	
KPKV	F. F. Gray, Butte, Mont.	283	50		KFRQ	Curtis Print Co., Fort Worth, Tex.	246	10		WBAP	Star-Telegram, Ft. Worth, Texas.	211	10	
KPKX	Westinghouse E. & M. Co., Hastings, Neb.	291	1000		KFRP	Trinity Church, Redlands, Calif.	211	10		WBAV	Ernest Hopkins Co., Ohio.	220	10	
KPLA	A. R. Wilson, Butte, Mont.	258	5		KFRQ	Radio Service Co., Portland, Ore.	213	10		WBAX	J. H. Stenger Jr., Barre, Vt.	211	10	
KPLB	Signal Electric Mfg. Co., Menominee, Mich.	248	50		KFRR	Nebraska Buick Auto Co., Lincoln, Neb.	240	70		WBBA	Plymouth Congregational Church, Newark, O.	220	10	
KPLE	National Educational Service, Denver, Colo.	268	25		KFRW	United Churches, Olympia, Wash.	220	10		WBBD	Barberry Battery Service, Pa.	217	10	
KPLQ	Bizzell Radio Co., Little Rock, Ark.	261	20		KFRY	College of Agriculture, State College, N. M.	266	10		WBBO	Georgia College of Technology, Ga.	222	10	
KPLM	University of New Mexico, Albuquerque, N. M.	254	100		KFRZ	The Electric Shop, Hartington, Neb.	222	10		WBCH	J. Irving Bell, Fort Meade, Mich.	278	100	
KPLU	San Benito Radio Co., San Benito, Tex.	236	20		KFSG	Echo Park Evangelistic Association, Los Angeles, Calif.	249	100		WBBI	National Electric Co., Palm Beach, Fla.	242	10	
KPLV	Swedish Evangelical Church, Rockford, Ill.	222	100		KFST	The Van Buren Co., Helena, Mont.	248	10		WBBL	Grace Covenant Presbyterian Church, Richmond, Va.	242	100	
KPLX	George R. Clough, Galveston, Tex.	240	10		KFUJ	Hopper P. & H. Co., Breckenridge, Minn.	242	10		WBBM	H. L. Atlass, Chicago.	235	10	
KPLZ	Atlantic Auto Co., Atlantic, Ia.	273	100		KFUL	T. G. Grogan & Bro., Galveston, Tex.	258	10		WBBP	Petoskey High School, Key, Mich.	252	10	
KPMQ	University of Arkansas, Fayetteville, Ark.	263	500		KFUM	W. O. Corley, Colorado Springs, Colo.	242	100		WBBR	People's Pulpit, Asbury Park, N. J.	242	100	
KPMR	Morningside College, Sioux City, Ia.	261	10		KFVO	Concordia Theological Seminary, St. Louis, Mo.	249.1	500		WBBS	First Baptist Church, Leaven, Ia.	235	100	
KPMT	Dr. G. W. Young, Minneapolis, Minn.	251	10		KTHS	New Arlington Hotel, Hot Springs, Ark.	235	100		WBBS	Jens Motor Sales Co., mouth, Ill.	235	100	
KPMW	M. G. Sataren, Houghton, Mich.	266	50		KFT	E. C. Anthony, Inc., Los Angeles, Calif.	235	100		WBBS	Johnstown Radio Co., town, Pa.	232	100	
KPMX	Carleton College, Northfield, Minn.	253	100		KFV	Montgomery, Los Angeles, Calif.	248	10		WBBS	Rutherford City High School, folia, Va.	232	100	
KPNP	Henry Field Seed Co., Shenandoah, Ia.	266	500		KGK	The Oregonian, Portland, Ore.	492	500		WBBS	Washington Light, Charleston, S. C.	235	100	
KPNQ	Wootton Radio Shop, Coldwater, Miss.	254	10		KGK	St. Martin's College, Lacey, Wash.	235	5		WBBS	N. B. Watson, Indiana.	235	100	
KPNR	Royal Radio Co., Burlingame, Calif.	231	10		KHJ	The Times, Los Angeles, Calif.	325	100		WBBS	Foster & McDonnell, Inc.	237	100	
KPNZ	First Christian Church, Helena, Mont.	231	10		KHQ	Louis Wasmur, Seattle, Wash.	260	100		WCK	Stix, Baier & Fuller Co., Mo.	235	100	
KPOF	First Christian Church, White Bear Lake, Minn.	236	10		KJQ	C. O. Gould, Stockton, Calif.	340	5		WCM	Texas Market Department, Tex.	232	100	
KPOJ	Mobile High School Radio Club, Mobile, Mo.	246	10		KJR	Northwest Radio Co., Seattle, Wash.	232	100		WCX	Detroit Free Press, Detroit, Mich.	232	100	
KPOK	Meeker High School Radio Club, Meeker, Colo.	246	10		KLS	Warren Bros. Radio Co., Oakland, Calif.	232	100		WCAD	St. Lawrence University, St. Lawrence, N. Y.	237	100	
KPOL	Echophone Radio Shop, Long Beach, Calif.	234	10		KLX	The Tribune, Oakland, Calif.	240.9	500		WCAC	Kaufman & Baer, Pa.	237	100	
KPOM	Mobile High School Radio Club, Mobile, Ala.	246	10		KLZ	Reynolds Radio Co., Denver, Colo.	232	100		WCAG	C. R. Randall, New Orleans, O.	237	100	
KPON	Concordia Theological Seminary, San Joaquin, Calif.	248	10		KMJ	San Joaquin L. & P. Corp., Fresno, Calif.	248	10</						

Stations in the United States and Their Wavelengths

Wave Length Meters.	Power Watts.	Station Owner and Location	Wave Length Meters.	Power Watts.	Station Owner and Location	Wave Length Meters.	Power Watts.	Station Owner and Location	Wave Length Meters.	Power Watts.
268	10	Johnson, Grafton, N. D.	360	500	WFBY—Signal Corps, Ft. Ben Harrison, Ind.	258	100	WFBY—Signal Corps, Ft. Ben Harrison, Ind.	258	100
250	10	Johnson Jr., Conway, Ark.	337	*1500	WDAR—Lit Bros., Philadelphia, Pa.	395	500	WFBZ—Knox College, Galesburg, Ill.	254	10
240	10	Grand Forks, N. D.	283	250	WDAS—S. A. Waite, Worcester, Mass.	360	50	WG1—American Radio Res. Corp., Medford Hillside, Mass.	360	500
263	50	Fort Sill, Ok.	283	250	WDAY—Radio Equipment Corp., Fargo, N. D.	244	50	WGL—Thos. F. J. Howlett, Philadelphia, Pa.	360	500
224	5	Fort, Hanford, Cal.	244	100	WDDB—H. H. Waite & Co., Taunton, Mass.	229	10	WGN—The Tribune, Chicago, Ill.	370	1000
246	50	Fort Co., Fort Worth,	244	100	WDBC—Kirk, Johnson & Co., Lancaster, Pa.	258	50	WGR—Federal Telephone Mfg. Co., Buffalo, N. Y.	380	*1000
211	10	Redlands, Cal.	275	50	WDBD—H. E. Burns, Martinsburg, W. Va.	268	5	WGAL—Lancaster Elec. Supply Co., Lancaster, Pa.	248	10
213	5	Service Co., Portland,	275	50	WDBF—R. G. Phillips, Youngstown, O.	246	50	WGQ—Yours Hotel, Shreveport, La.	262	150
240	200	Buick Auto Co., Lin-	423	500	WDBH—C. T. Sherer Co., Worcester, Mass.	268	100	WGQ—The Tribune, South Bend, Ind.	275	250
220	100	Churches, Olympia,	264	20	WDBI—Radio Spec. Co., St. Petersburg, Fla.	226	10	WGQ—Jones Elec. & Radio Co., Baltimore, Md.	254	50
220	100	Klemgard, Pullman,	226	20	WDEJ—Richardson Wayland Elec. Co., Roanoke, Va.	229	20	WGQB—H. H. Carnan, Freeport, N. Y.	244	100
217.3	10	of Agriculture, State	234	50	WDBL—Department of Markets, Steven Point, Wis.	278	500	WGBC—First Baptist Church, Memphis, Tenn.	266	10
266	80	W. M. State	270	500	WDBN—Electric Light and Power Co., Bangor, Me.	252	5	WGBS—Gimbels Brothers, New York, N. Y.	316	1000
222	15	Evangelistic Asso-	248	100	WDBO—Rollins College, Winter Park, Fla.	240	50	WGRT—Furman University, Greenville, S. C.	236	15
278	500	Los Angeles, Cal.	226	50	WDEP—State Normal School, Superior, Wis.	261	50	WHA—University of Wisconsin, Madison, Wis.	275	500
260	500	Blaroom Co., Helena,	226	50	WDBQ—Morton Radio Supply Co., Salem, N. J.	234	10	WHB—Sweeney School Co., Kansas City, Mo.	411	500
248	10	Co., Breckin-	205.4	50	WDBR—Tremont Temple Baptist Church, Boston, Mass.	256	100	WHK—Radiovox Co., Cleveland, O.	283	100
242	50	on & Bro., Galveston,	258	50	WDRS—S. M. K. Radio Corp., Dayton, O.	276	5	WHN—Loew's State Theater, New York, N. Y.	360	500
258	10	Colorado Springs,	200	500	WDBT—Taylor's Book Store, Hattiesburg, Miss.	236	10	WHO—Bankers Life Co., Des Moines, Ia.	*522.3	500
242	100	Theological Seminary,	258	50	WDBW—Radio Den, Columbia, Tenn.	268	10	WHAD—Marquette University, Milwaukee, Wis.	275	100
549.1	500	ington Hotel, Hot	226	50	WDBX—Otto Baur, New York, N. Y.	233	5	WHAG—University of Cincinnati, Cincinnati, O.	223	100
375	500	Ark.	226	50	WDBY—North Side Congregational Church, Chicago, Ill.	258	500	WHAM—University of Rochester, Rochester, N. Y.	278	100
469	*1500	Inc., Los Angeles,	224	10	WDEK—Boy Scouts of America, Kingsport, N. Y.	223	5	WHAR—Seaside Hotel, Atlantic City, N. J.	275	100
252	50	Tacoma, Wash.	224	10	WEB—The Benwood Co., St. Louis, Mo.	273	50	WHAS—The Courier Journal-Times, Louisville, Ky.	400	500
312	*1500	Electric Co., Oakland,	248	10	WEW—St. Louis University, St. Louis, Mo.	263	100	WHAV—Wilmington Elec. Spec. Co., Wilmington, Del.	266	100
360	500	Honolulu, Ha-	248	10	WEAA—F. D. Fallain, Flint, Mich.	234	10	WHAZ—Rensselaer Polytechnic Institute, Troy, N. Y.	380	500
492	500	ian, Portland, Ore.	222	50	WEAH—Wichita Board of Trade, Wichita, Kan.	268	50	WIK—K. & L. Elec. Supply Co., McKeepsport, Pa.	234	500
258	5	College, Lacey, Wash.	268	10	WEAI—Cornell University, Ithaca, N. Y.	254	500	WIP—Gimbels Brothers, Philadelphia, Pa.	*509.9	500
395	500	Los Angeles, Cal.	268	10	WEAJ—University of South Dakota, Vermillion, S. D.	283	100	WIA—The Tribune, Galveston, Tex.	360	100
360	5	mer, Seattle, Wash.	268	100	WEAM—Borough of North Plainfield, N. J.	261	100	WIAJ—H. R. Miller, Philadelphia, Pa.	254	100
360	5	Stockton, Cal.	268	10	WEAN—Shepard Co., Providence, R. I.	273	100	WIAK—Journal Stockton Co., Omaha, Neb.	278	200
283	100	Radio Co., Seattle,	268	100	WEAO—Ohio State University, Columbus, O.	294	500	WIAIS—Home Elec. Co., Burlington, Ia.	283	100
262	500	te Co., Los Angeles, Los	280	500	WEAP—Mobile Radio Supply Co., Mobile, Ala.	263	100	WJD—Dennison University, Granville, O.	217.3	10
262	500	Cal.	280	500	WEAU—Davidson Bros. Co., Sioux City, Ia.	263	100	WJY—Radio Corp. of Ama., New York, N. Y.	465	500
260	500	Radio Co., Oakland,	268	500	WEAT—Iris Sander, Houston, Tex.	275	100	WJZ—Radio Corp. of Ama., New York, N. Y.	455	500
260	250	Co., Denver, Colo.	268	500	WEBA—The Electric Shop, Highland Park, N. J.	233	15	WJAB—American Elec. Co., Lincoln, Neb.	229	100
260	500	L. & P. Corp., Fres-	268	500	WEBC—C. R. Standall, New Orleans, La.	268	50	WJAD—Jackson Radio Elec. Co., Waco, Tex.	353	500
248	50	mer Co., Tacoma, Wash.	280	500	WEBD—Elec. Equipment & Service Co., Anderson, Ind.	246	10	WJAG—Norfolk Daily News, Norfolk, Neb.	270	250
248	50	enrich, Kukak Bay,	280	500	WEBE—Roy W. Walker, Cambridge, O.	248	10	WJAK—Rev. C. L. White, Greenpoint, Ind.	254	30
283	100	Los Angeles, Cal.	280	500	WEBI—Edgewater Beach Hotel, Chicago, Ill.	270	1000	WJAM—D. M. Perham, Cedar Rapids, Ia.	268	20
327	500	Cal.	280	500	WEBI—Walter H. Gibbons, Salisbury, Md.	242	15	WJAN—The Star, Peoria, Ill.	73	100
327	500	Agri. & Mech. Arts,	280	500	WEBJ—Third Avenue R. R. Co., New York, N. Y.	273	500	WJAR—The Outlet Co., Providence, R. I.	360	500
360	500	Police Department, De-	280	500	WEBK—Grand Rapids Radio Co., Grand Rapids, Mich.	242	20	WJAS—Pittsburg Radio Supply House, Pittsburgh, Pa.	275	500
278	500	n.	280	500	WEBL—Radio Corp. of Ama. (Portable)	226	100	WJAX—Union Trust Co., Cleveland, O.	290	500
423	500	San Francisco, Cal.	240	100	WEBO—H. W. Fahrlander, Radio Co., Hamilton, O.	252	5	WJAZ—Chicago Radio Laboratory, Chicago, Ill.	268	100
275	500	Hill Elec. Co., Pitts-	240	100	WEBP—E. B. Peddicord, New Orleans, La.	280	50	WJJD—Local Order of Moose, Mooseheart, Ill.	278	500
275	500	ford, San Jose, Cal.	240	100	WEBQ—Tate Radio Co., Harrisburg, Ia.	226	10	WKY—WKY Radio Shop, Oklahoma City, Okla.	520	100
275	500	le, Berkeley, Cal.	240	100	WEBR—H. H. Howell, Buffalo, N. Y.	240	15	WKA—H. F. Paar, Cedar Rapids, Ia.	278	100
275	500	St. Louis, Mo.	240	100	WEBT—Dayton High School, Dayton, O.	256	5	WKAP—U. S. Radio Service Co., Wichita Falls, Tex.	360	100
275	500	byterian Church, Se-	240	100	WEBW—Beloit College, Beloit, Wis.	268	500	WKAN—United Battery Service Co., Montgomery, Ala.	226	15
360	750	Printing Co., San	240	100	WEBX—J. E. Gains Jr., Nashville, Tenn.	263	50	WKAP—D. W. Flint, Cranston, R. I.	360	50
360	150	Cal.	240	100	WEBY—Hobart Radio Co., Roslyn, Mass.	226	10	WKAR—Michigan Agricultural College, Lansing, Mich.	280	500
360	100	Wireless Tel. Co., Stock-	240	100	WEBZ—Savannah Radio Corp., Savannah, Ga.	234	5	WKAV—Laconia Radio Club, Laconia, N. H.	254	50
360	100	inger, Los Angeles, Cal.	240	100	WEEL—Edison Electric Illuminating Co., Boston, Mass.	303	500	WKBP—D. W. Flint, Cranston, R. I.	286	500
360	100	lectric Shop, Honolulu,	240	100	WEMC—Emm. Missionary College, Berrien Springs, Mich.	286	250	WLBS—University of Minneapolis, Minneapolis, Minn.	278	5
270	100	E. & M. Co., Chi-	240	100	WEFI—Strawbridge & Clothier, Philadelphia, Pa.	295	500	WLW—Crosley Radio Corp., Cincinnati, O.	423	500
525.4	*1500	icago, Ill.	240	100	WEFA—Dallas News and Journal, Dallas, Tex.	*480	500	WLAL—Naylor Electric Co., Tulsa, Okla.	360	100
360	100	Journal, Chicago, Ill.	240	100	WEFB—The Times, St. Cloud, Minn.	273	10	WLAP—W. V. Jordan, Louisville, Ky.	286	20
250	250	son Co., Newark, N. J.	240	100	WEFC—H. P. Messter, Providence, R. I.	246	5	WLAX—Putnam Electric Co., Green castle, Ind.	231	10
254	50	Co.	240	100	WEFD—Charles Schwarz, Baltimore, Md.	226	50	WLBL—Wisconsin Department of Markets, Stevens Point, Wis.	278	500
254	50	Brain Exchange, Oma-	240	100	WEFG—First Baptist Church, Nashville, Tenn.	244	50	WMC—The Commercial Appeal, Memphis, Tenn.	*503.9	500
256	500	ng Sporting Goods Co.,	240	100	WEFH—First Baptist Church, Nashville, Tenn.	236	10	WMI—Ainsworth-Gates Radio Co., Cincinnati, O.	*326	750
266	10	Pa.	240	100	WEFI—Arnold Wireless Co., Arnold, Pa.	220	50	WMIU—Doubleday Hill Electric Co., Washington, D. C.	261	100
266	10	High School, Dayton, O.	240	100						

INTERNATIONAL MORSE CODE AND CONVENTIONAL SIGNALS

To Be Used for All General Public Service Radio Communication

1. A dash is equal to three dots.
2. The space between parts of the same letter is equal to one dot.
3. The space between two letters is equal to three dots.
4. The space between two words is equal to five dots.

A . . .	N . . .	1
B — . .	O — . .	2
C — . .	P . . .	3
D — . .	Q . . .	4
E . .	R . . .	5
F . . .	S . .	6
G — . .	T . .	7
H	U . . .	8
I .. .	V . . .	9
J — . .	W . .	0
Period		
Semicolon		
Comma		
Colon		
Interrogation		
Exclamation point		
Apostrophe		
Hyphen		
Bar indicating fraction		
Parenthesis		
Inverted commas		
Underline		
Double dash		
Distress call		
Attention call to precede every transmission		
General inquiry call		
From (de)		
Invitation to transmit (go ahead)		
Warning—high power		
Question (please repeat after . . .) interrupting long messages		
Wait		
Break (bk.) (double dash)		
Understand		
Error		
Received (O. K.)		
Position report (to precede all position messages)		
End of each message (cross)		
Transmission finished (end of work) (conclusion of correspondence)		

A KSD SOLOIST OF THE WEEK



A member of the choir of St. Michael and All Angels' Church. She will give a recital Tuesday night, assisted by John Tiedeman, baritone.

ARTIST



CENTRAL WE

FEATURES ON KSD PROGRAM NEXT WEEK

TATION KSD will be this pioneer in a new field of programs. For the first time an artist of international fame, a complete recital in a radio studio, artist is Francis Macmillen, the American violinist, who will play Monday night, and the program as would be presented in a concert before a discriminating audience and critics.

Music lovers, critics and managers over the United States are eagering this program, which will include "Symphonie Espagnole," Andante and Finale from the Mendelssohn concerto, and numerous smaller pieces. Macmillen will come to St. Louis especially for this radio appearance, will begin his program at 9 o'clock Monday evening next week.

Thousands of radio fans who have been tuning in KSD will rejoice when an artist of Macmillen's proportions consented to lend his talents. If one concert to the entertainment vast unseen audience, and many music hungry persons who beyond the reach of artistic concert have a treat of rare delight through this program.

Macmillen will be assisted at the by Mrs. David Kriegshaber, one of the foremost artists, and the two as arranged will give adequate opportunity for both. Macmillen's wonderful technique, as well as his mellowness and exquisite artistry, will have exceptional vehicle in the selections used for his recital. The program is given below:

1. (a) Romance
- (b) Prelude and Allegro
2. "Symphonie Espagnole" (Andante and Rondo)
3. (a) Traumerlied
- (b) Mazurka
- (c) Barcarole
- (d) Introduction and Tarantella
4. (a) Ave Maria
- (b) Polonaise
5. Andante and Finale from the Concerto

Francis Macmillen was born at Etta, Ok., and his career embodies a series of unbroken successes. He has appeared on numerous occasions and with practically every great sym-

Complete List of Broadcasting Stations in the United States and Their Wavelengths

(Continued From Page 5.)

Station	Owner and Location	Wave Length	Power	Station	Owner and Location	Wave Length	Power	Station	Owner and Location	Wave Length	Power
		Meters	Watts			Meters	Watts			Meters	Watts
WMAZ—Mercer University, Macon, Ga.	261	100	WPAU—Concordia College, Moorhead, Minn.	286	10	WSAC—Clemson Agricultural College, Clemson, S. C.	360	500			
WNJ—Radio Shop, Newark, N. J.	233	100	WPAZ—Dr. J. H. Koch, Charleston, W. Va.	268	10	WSAI—J. A. Foster Co., Providence, R. I.	261	100			
WNAC—Shepard Stores, Boston, Mass.	280	500	WQJ—Calumet Rainbow Broadcasting Co., Chicago, Ill.	448	500	WSAI—U. S. Playing Card Co., Cincinnati, O.	226	500			
WNAD—University of Oklahoma, Norman, Ok.	254	100	WQAA—H. A. Beale Jr., Parkersburg, Pa.	220	500	WSAJ—Grove City College, Grove City, Pa.	258	500			
WNAL—Omaha Central High School, Omaha, Neb.	258	20	WQAC—Gish Radio Service, Amarillo, Tex.	234	100	WSAN—Allentown Call, Allentown, Pa.	229	10			
WNAP—Wittenberg College, Springfield, O.	248	100	WQAE—Moore Radio News Station, Springfield, Vt.	275	50	WSAF—City Temple, New York, N. Y.	263	100			
WNAR—First Christian Church, Butler, Pa.	231	20	WQAL—Cole County T. and T. Co., Mattoon, Ill.	258	10	WSAR—Doherty & Welsh Elec. Co., Fall River, Mass.	254	10			
WNAT—Lennings Bros Co., Philadelphia, Pa.	250	100	WQAM—Electric Equipment Co., Miami, Fla.	268	10	WSAN—Chicago Radio Laboratory, Chicago, Ill.	263	10			
WNAX—Dakota Radio App. Co., Yankton, S. D.	244	100	WQAN—The Scranton Times, Scranton, Pa.	280	100	WSAZ—Chase Radio Co., Pomeroy, O.	244	10			
WNYC—Municipal Station, New York, N. Y.	528.8	1000	WQAO—Calvary Baptist Church, New York, N. Y.	360	100	WSOE—School of Engineering, Milwaukee, Wis.	246	100			
WOAC—Page Organ Co., Lima, O.	266	50	WQAQ—West Texas Radio Co., Abilene, Tex.	360	100	WSUI—State University of Iowa, Iowa City, Ia.	498	100			
WOAE—Midland College, Fremont, Neb.	280	15	WQAS—Prince Walter Co., Lowell, Mass.	266	100	WTG—Kansas Agricultural College, Manhattan, Kan.	373	10			
WOAF—Tyler Commercial College, Tyler, Tex.	360	20	WRC—Radio Corp. of America, Washington, D. C.	469	500	WTAB—Fall River Daily Herald, Fall River, Mass.	266	100			
WOAI—South. East. Equipment Co., San Antonio, Tex.	385	500	WRK—Doren Bros. Elec. Co., Hamilton, O.	270	200	WTAC—Penn. Traffic Co., Johnstown, Pa.	209	100			
WOAN—Vaughn, Conservatory of Music, Lawrenceburg, Tenn.	360	150	WRM—University of Illinois, Urbana, Ill.	273	500	WTAP—L. J. Gallo, New Orleans, La.	268	10			
WOAR—H. P. Lundskow, Kenosha, Wis.	229	50	WRR—Dallas Police and Fire Dept., Dallas, Tex.	261	200	WTAL—Toledo Radio and Elec. Co., Toledo, O.	246	10			
WOAV—Pennsylvania National Guard, Erie, Pa.	242	100	WRRW—Tarrytown Research Laboratory, Tarrytown, N. Y.	273	150	WTAM—Willard Storage Battery Co., Cleveland, O.	390	1000			
WOAW—Woodmen of the World, Omaha, Neb.	522.3	500	WRRW—Ricin Institute, Houston, Tex.	266	100	WTAP—Cambridge Radio Elec. Co., Cambridge, III.	242	10			
WOAX—F. Wolf, Trenton, N. J.	240	500	WRAA—Radio Club, Inc., Laporte, Ind.	234	20	WTAQ—S. Van Gordon & Son, Osseo, Wis.	254	100			
WOC—Palmer School of Chiropractic, Davenport, Ia.	493	500	WRAL—Northern States Power Co., St. Croix Falls, Wis.	248	100	WTAR—Reliance Radio and Elec. Co., Norfolk, Va.	280	100			
WOCL—Hotel Jamestown, Jamestown, N. Y.	275	15	WRAM—Lombard College, Galesburg, Ill.	244	250	WTAS—Charles E. Erbstein, Elgin, Ill.	236	100			
WOL—Iowa State College, Ames, Ia.	360	500	WRAN—Black Hawk Elec. Co., Waterloo, Ia.	236	10	WTAT—Editions III Co. (Portable), Boston, Mass.	244	10			
WOJ—John Wanamaker, Philadelphia, Pa.	509.9	500	WRAO—Radio Service Co., St. Louis, Mo.	227	10	WTAU—Rheem Battery and Elec. Co., Tecumseh, Neb.	242	10			
WOQ—Unity School of Christianity, Kansas City, Mo.	278	500	WRAV—Antioch College, Yellow Springs, O.	263	10	WTAW—Agricultural and Mech. College, College Station, Tex.	270	10			
WOR—L. Bamberger & Co., Newark, N. J.	405	500	WRAW—Avenue Radio Shop, Reading, Pa.	238	100	WTAX—Williams Hardware Mfg. Co., Streator, Ill.	231	10			
WQRD—Peoples Pulpit Ass'n, Batavia, Ill.	278	500	WRAX—Flexon's Garage, Gloucester City, N. J.	268	10	WTAY—Oak Leaves Broadcasting Ass'n, Oak Park, Ill.	250	100			
WOS—Missouri State Marketing Bureau, Jefferson City, Mo.	433.5	500	WRBC—Immanuel Lutheran Church, Valparaiso, Ind.	278	100	WTAZ—T. J. McGuire, Lambertville, N. J.	261	10			
WPG—Municipality of Atlantic City, N. J.	296	500	WRFO—RKO Motor Co., Lansing, Mich.	256	500	WWI—Ford Motor Co., Dearborn, Mich.	273	10			
WPAB—Penn. State College, State College, Pa.	261	500	WRHF—Radio Hospital Fund, Washington, D. C.	256	500	WWJ—The Detroit News, Detroit, Mich.	210	100			
WPAC—Donaldson Radio Co., Okmulgee, Ok.	360	200	WSB—The Atlanta Journal, Atlanta, Ga.	429	500	WWL—Loyola University, New Orleans, La.	280	100			
WPAJ—Doolittle Radio Corp., New Haven, Conn.	268	10	WSL—J. M. Elec. Co., Utica, N. Y.	273	100	WWAD—Wright & Wright Inc., Philadelphia, Pa.	250	100			
WPAK—N. D. Agricultural College, Agricultural College, N. D.	275	50	WSAB—S. E. Mo. State Teachers' College, Cape Girardeau, Mo.	275	100	WWAE—Alama Ballroom, Joliet, Ill.	242	100			
								WWAO—College of Mines, Houghton, Mich.	244	100	

*Indicates experimental wavelength.

OF THE WEEK

ARTISTS TO BE HEARD ON KSD PROGRAMS NEXT WEEK



CENTRAL WESLEYAN COLLEGE BAND

MRS. O. H.
KLEINSCHMIDT
—CONTRALTO—FEATURES ON KSD
PROGRAMS
NEXT WEEK

NOTED VIOLINIST IN KSD RECITAL

WHEN KSD WAS
ON THE AIR
18 HOURSFRANCIS
MACMILLEN
AMERICAN
VIOLIN
VIRTUOSO

STATION KSD will be this week a pioneer in a new field of radio programs. For the first time on record an artist of international fame will give a complete recital in a radio studio. The artist is Francis Macmillen, the famous American violinist, who will play at KSD Monday night, and the program is such as would be presented in a concert hall before a discriminating audience of artists and critics.

Music lovers, critics and managers all over the United States are eagerly awaiting this program, which will include the Lalo "Symphonie Espagnole," the Andante and Finale from the Mendelssohn concerto, and numerous smaller numbers. Macmillen will come to St. Louis especially for this radio appearance, and will begin his program at 9 o'clock on Monday evening next week.

Thousands of radio fans who are enabled to tune in on KSD will rejoice that an artist of Macmillen's proportions has consented to lend his talents, if only for one concert, to the entertainment of the vast unseen audience, and many shut-ins and music hungry persons who are beyond the reach of artistic concerts will have a treat of rare delight through this program.

Macmillen will be assisted at the piano by Mrs. David Kriegshaber, one of St. Louis' foremost artists, and the program as arranged will give adequate opportunity for both. Macmillen's wonderful technique, as well as his mellow tone and exquisite artistry, will have an exceptional vehicle in the selections scheduled for his recital. The program in full is given below:

1. (a) Romance Sinding
 (b) Prelude and Allegro Pugnani-Kreisler
2. "Symphonie Espagnole (Andante and Rondo) Lalo
3. (a) Traumerli Schumann
 (b) Mazurka Zarzycki
 (c) Barcarole Macmillen
4. (d) Introduction and Tarantelle — Sarasate

4. (a) Ave Maria Schubert-Wilhelmj
 (b) Polonaise Wieniawski
5. Andante and Finale from the Concerto Mendelssohn

Francis Macmillen was born at Marietta, O., and his career embodies a series of unbroken successes. He has appeared on numerous occasions as soloist with practically every great symphony

orchestra in the world, including the Stoker, soprano, assisted by John Tiedemann, Berlin Philharmonic, under Artur Nikisch; the Vienna Tonkunstler, Mrs. H. L. Ewald, pianists, will give this under Oscar Nedbal; the Halle (En) program. Mrs. Stoker is one of the popular orchestra, under Hans Richter;ular concert and choir singers of the New London Symphony, under Sir Landon Ronald; the Queen's Hall Orchestra, under Sir Henry Wood, and numerous continental European symphony

orchestra organizations.

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4. (d) Introduction and Tarantelle — Sarasate

4. (a) Ave Maria Schubert-Wilhelmj
 (b) Polonaise Wieniawski
5. Andante and Finale from the Concerto Mendelssohn

Much enjoyment is promised to radio fans and music lovers who tune in for KSD this week. Not only is this station to have the noted violin virtuoso, Francis Macmillen, on its week's schedule, but other exceptional programs also are on the list. The night following the Macmillen recital there will be another artist recital in the studio. Mrs. John E.

ALTHOUGH there has not been time for reports to be received from foreign countries, other than Mexico, Canada and Cuba, it is believed this program, which was broadcast by Station KSD Jan. 13 and 14 for eighteen hours continuously, has been successful. In the matter of quality of performance and pleasure given to listeners, it was a decided success according to letters received from those who heard it. Many persons stayed with KSD for the entire eighteen hours. Most of these were in Illinois and Missouri, but listeners as far away as Washington, D. C., and points on the Atlantic Coast also reported having heard the entire program.

Although the test was for distance, many listeners considered it an endurance test, as well, for the station, its staff, and the listening public, and some humorously stated that their sets stood the test and that apparently the staff did also, as its members were still going strong at the signing off period. One listener at Winter Park, Fla., "kept receiving his program from the beginning to the end just to try out my receiver on a test of keeping the station without making a change through the program, and I was successful in my test and I hope you were heard at a great distance."

It is believed that KSD established one record at least for a 500-watt station. That was in daylight voice and music broadcasting. The program began at 4 p. m. on Tuesday and ended at 9:55 a. m. Wednesday. It was distinctly heard at Winter Park, Fla., at 7:30 a. m. (Eastern time); at 5:40 p. m. (Eastern time) at Newton Highlands, Mass.; at 7 a. m. (Eastern time) at Rockland, Me., and at 5:25 p. m. (Pacific time) at Manhattan Beach, Cal. A report which reached KSD following the program was that R. S. Gillam of Fresno, Cal., received a good portion of the program on the night of Jan. 13 on a small crystal set. The reception, according to the report, was clear and strong. Experts at the station rather doubt the reception was altogether on his set, but the incident is an interesting one.

In the matter of the program, and its more than 100 participants, it is believed that no more varied or interesting entertainment could have been arranged, and certainly no greater co-operation could have been given than that accorded KSD by the artists and speakers who took part in the 18-hour test. Two of the performers spent six hours at the station to be on hand as "pinch-hitters" in case of need. These two were Mrs. Ruby Tanner Campbell of Flora, Ill., and Vin James of Belleville, Ill., who gave a joint recital from 6 to 7 a. m. on Jan. 14. Both assisted on several of the programs which preceded their own, going on at various times after midnight.

el and All Angels' Church. She
ested by John Tiedeman, baritone.

Their Wavelengths

Wave and Location	Length Meters.	Power Watts.
Agricultural College, Ill.	360	500
College, S. C.	360	500
Foster Co., Providence, R. I.	261	100
Playing Card Co., Cincinnati, Ohio	326	500
City College, Grove City, Pa.	258	250
Own Call, Allentown, Pa.	229	10
Empire, New York, N. Y.	263	250
City & Welsh Elec. Co., Worcester, Mass.	254	10
Radio Laboratory, Chicago, Ill.	268	20
Radio Co., Pomeroy, O.	244	50
of Engineering, Milwaukee, Wis.	246	100
University of Iowa, Iowa City, Iowa	498	500
State Agricultural College, Manhattan, Kan.	273	50
River Daily Herald, Fall River, Mass.	266	100
Traffic Co., Johnstown, Pa.	209	150
Gallo, New Orleans, La.	263	20
Radio and Elec. Co., Toledo, O.	240	10
Storage Battery Co., Toledo, O.	290	1500
Edge Radio Elec. Co., Chicago, Ill.	242	50
Gordon & Son, Osceola, Wis.	254	100
Radio and Elec. Co., Milwaukee, Wis.	280	100
E. Erbstein, Elgin, Ill.	286	500
Elect. Ill Co. (Portable), Chicago, Ill.	244	100
Battery and Elec. Co., Waukegan, Ill.	242	10
Electrical and Mech. College, Dallas, Tex.	270	50
Hardware Mfg. Co., Dallas, Tex.	231	50
Waves Broadcasting Ass'n, Ill.	250	100
McGuire, Lambertville, N. J.	261	15
Co., Dearborn, Mich.	273	50
Detroit News, Detroit, Mich.	516	500
University, New Orleans, La.	280	100
W. & Wright Inc., Philadelphia, Pa.	256	100
Ballroom, Joliet, Ill.	242	150
Co. of Mines, Houghton, Mich.	244	250
Experimental wavelength.		

Fascinating History
of the Rise and
Progress of Radio

This comprehensive outline of the development of radio from its infancy to its present stature as a giant industry was incorporated in an address at the recent Pan-American Conference on Standardization in Lima, Peru.

By DR. ALFRED N. GOLDSMITH.

RATICAL radio communication is now more than a quarter of a century old, and may fairly be said to have passed out of its infancy and into its period of early maturity. Radio engineering is rapidly becoming a specialized and exact division of electrical engineering. Commercially, the radio field has reached such proportions that the radio industry takes its place, at least in certain countries, among the major manufacturing and sales industries of these countries. It is fitting, therefore, to consider the trend of radio communication during the last 25 years and to study the evolution of the art during that time.

TECHNICAL EVOLUTION.
SPARK COIL TRANSMITTER AND COHERER RECEIVER.—The first stage in radio communication may be termed the epoch of highly damped wave transmission and reception, and relatively non-selective receiving methods using potential operated detecting devices. The typical transmitter during this early period of the art was the spark coil, which produced a relatively infrequent succession of highly damped wave trains in the antenna system. The radiation covered a very wide range of frequencies in the spectrum and was therefore sure to produce marked interference in all receiving sets. The receiving sets were not electrically selective to any considerable extent, and the typical detector was the coherer.

ROTARY SPARK TRANSMITTER AND CRYSTAL OR ELECTROLYTIC DETECTORS.—The second epoch may be called that of the moderate decrement transmitter and the proportional-response detector. During this time spark transmitters, frequently of the rotary gap type, were employed. These gave a more frequent succession of moderately damped wave trains, though still covering a wide range of frequencies in the emission and not permitting truly selective signaling. The receiving set was only moderately selective, it being hardly worth while to increase the selectivity of receiving sets to any considerable extent when using such transmitters. On the other hand, a great improvement was made in the detector system. Crystal or electrolytic detectors were employed. Such detectors were better suited to use with reception by ear than the coherer, and accordingly the speed of operation was greatly increased.

QUENCHED SPARK TRANSMITTER AND THREE-ELECTRODE VACUUM TUBE RECEIVERS.—The third epoch in radio communication may be termed that of the low decrement transmitter and the highly sensitive receiver. The transmitter most typical of this epoch is the quenched spark transmitter, which produces a large number of regularly spaced wave trains of low decrement each second. This method of transmission is well adapted to the production of a musical tone in the receiver, and thus permits a considerable degree of psychological discrimination of the signal as against incidental atmospheric disturbances of reception.

The receiving set was either of the crystal detector variety or employed the three-electrode vacuum tube. Audio-frequency amplification also came into vogue. The new tube receivers soon showed the possibility of building receivers of relatively low decrement and high selectivity, and of great sensitiveness. As a result it became possible to choose the desired signal, with at least the partial exclusion of others, and it also became feasible to signal over long distances, particularly during the favorable hours of the day and the best times of the year.

LONG-DISTANCE COMMUNICATION ATTAINED.—It became clear at this stage of the evolution of radio communication that the scope and usefulness of the art had been greatly increased. Whereas in the first epoch, radio was used almost entirely for communication between ship and shore stations (and for occasional military purposes), its use for overland communication increased somewhat during the second epoch; and during the third epoch it even began to be employed for the transoceanic and transcontinental services. Fairly powerful spark transmitters enabled long-distance communication of a hitherto unattainable degree of reliability. As a result of this increase in the use of radio, the congestion of traffic in the ether became very noticeable, and engineers bent their best efforts to the production of a transmitting and receiving system which should enable the use of a narrower band of frequencies for each separate transmission.

We thus come to the fourth epoch in

(Continued on Next Page.)

VAN-ASHERADIO

"The House of 4-Hour Service

THOMPSON
RADIO

"Experience is the Factor in Excellence"

10th & Pine

Cannon-Ball Headset

\$3.50



Cannon & Miller have put into Cameo Headsets and Loud Speakers the best that hands, modern machinery and specialized experience can produce for the price. Probably one of your neighbors is a Cameo enthusiast. Ask him, your dealer or write for folder

"Radio As You Like It"

Cameo Cannon-Ball Headset, \$3.50; Cameo Grand Headset, \$4.75.

**Camco
Guarantee**

This is a frank, liberal, iron-clad guarantee covering the Cameo Cannon-Ball Headset and Cameo Loud Speaker. The quality and craftsmanship in a Cameo product proves itself when put to the test of actual service. The Cameo product that you buy must satisfy you. Every Cameo dealer is authorized to refund the purchase price to any purchaser upon the return of a Cameo product if it fails to give absolute satisfaction within a period of ten days from date of purchase.

Cannon & Miller Co., Inc.
C. J. CANNON
President

SEND US YOUR MAIL ORDERS

**THOMPSON
\$125 RATIO
NEUTRODYNE Model V-50**

Every member of the family can readily select their individual program with the 5-tube Thompson Grandette. It is easy to handle and yields maximum results in clearness, volume, and ability to secure distant stations.

By demanding a Licensed Neutrodyne Circuit—designed after broadcasting was perfected—your investment is protected.

Enclosed in beautiful mahogany finished cabinet of simple and attractive design.

For 15 years the Armies, Navies and Commercial Companies of the Thompson Organization have used radio apparatus produced by the Thompson Organization.

We make immediate shipment on S-60, S-70 Thompson Neutrodyne.

ANNOUNCING OUR NEW
SOLDERING IRON

Queen Quality Complete—With
Cord and Plug. \$1.00



11 1/4 INCHES LONG—PENCIL POINT TIP FOR FINE WIRES
55 Watts, 110-125 Volts.
Packed in individual carton.

SEND US YOUR MAIL ORDERS

\$100.00 Accident Policy

*Covering Person, Set and
Property*

With Each **FIL-KO \$1.50**

Lightning Arrester

Immediate Shipment on All

FIL-KO PARTS

SEND US YOUR MAIL ORDERS

If It's Radio, Van-Ashe Has It
Send For Catalog

VAN-ASHERADIO C

10th & Pine, St. Louis, Mo., U.S.

S-S

**ATL SPEAKER \$10
WITH MONIZER**

Manufactured by Electric Co. (Atlas Spea



Each and every speaker has a written guarantee with a serial number which gives you an absolute guarantee by the manufacturer.

Model 101 \$20 Model 102 \$30
SEND US YOUR MAIL ORDERS

GENERAL RADIO

Soldered Plate Loss Condensers

The soldered plates of General Radio Condensers assure you the lowest possible resistance to radio frequencies. No other single feature of condenser design is so important in reducing losses and increasing condenser efficiency under actual work conditions.

Give your set the advantage of a laboratory designed condenser.

TYPE 247-H .0005 MF
With Vernier
Price, \$5.00

TYPE 247-P .0005 MF
Without Vernier
Price, \$3.25

WE CARRY A COMPLETE STOCK OF GENERAL RADIO PRODUCTS
SEND US YOUR MAIL ORDERS

ASHER RADIO CO.

The House of 4-Hour Service"

St. Louis, Mo., U. S. A.

THOMPSON RADIO

"Experience is the Factor in Excellence"



Designed After Broadcasting was Perfected

THOMPSON
\$145 RADIO
NEUTRODYNE 5-Tube
Model S-60

The Thompson Parlor Grand provides a quality of tone anyone will be proud to have his friends listen to. Local and distant stations are heard in natural, clear tones always at the same dial settings.

The two-tone mahogany finished cabinet is an ornament to any living room.

Ease of operation and permanent satisfaction is assured through the employment of the Neutrodyne Circuit.

THOMPSON SPAKER

...reaches the pinnacle
of tone action

Regardless of price or
type, a Thompson Speaker
will impress any room.
Production receiving
set. Now!

Happiness

2

5-Tube
Model V-50

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Neutrodyne

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finished

design.

For 15 years the Armies, Navies and Commercial Companies of the world have used radio apparatus produced by the Thompson Organization.

We make immediate shipments on the \$40, \$70 Thompson Neutrodyne.

S - - S

ATLASPEAKER \$10
WITH HORNIZER

Manufactured by the Electric Co. (Atlas Speakers)

Each and every Speaker has a written guarantee with a serial number giving you an absolute guarantee by the manufacturer.

Model 101 \$20 Model 102 \$30.00

SEND US YOUR MAIL ORDERS

GENERAL RADIO

Soldered Plate Low Condensers

The soldered plates of General Radio Condensers assure you of the best possible resistance to radio frequencies. No other single feature of condenser design is so important in reducing losses and increasing condenser efficiency under actual working conditions.

Give your set the advantage of laboratory designed condenser.

TYPE 247-H .0005 MF With Vernier

TYPE 247-F .0005 MF Without Vernier

Price, \$5.00

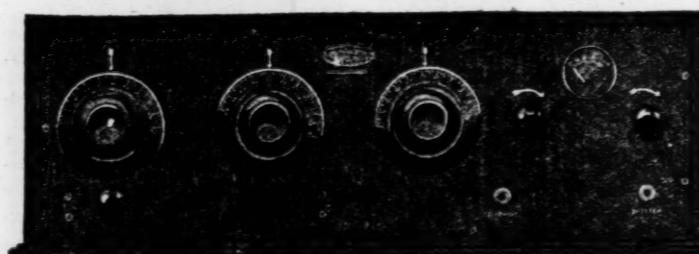
Price, \$3.25

We CARRY A COMPLETE STOCK OF GENERAL RADIO PRODUCTS
SEND US YOUR MAIL ORDERS

JUST ARRIVED
No. 3
Bremer-Tully Nameless Kit \$26.50

We Have a Complete Stock of All
B-T LOW-LOSS ITEMS
SEND US YOUR MAIL ORDERS

CLARATONE
5-TUBE Tuned Radio Frequency



\$50

SEND US YOUR MAIL ORDERS

AN-ASH RADIO CO. If It's Radio, Van-Ashe Has It
Send For Catalog

h & Pine

St. Louis, Mo., U. S. A.

Fascinating History of the Rise and Progress of Radio

(Continued From Preceding Page.)

radio development, namely, that of the continuous-wave telegraph transmitter and the highly selective receiver based upon heterodyne reception. The transmitters in this case were either arc oscillators or radio-frequency alternators. In contradistinction to all earlier types, they produced continuous-wave trains.

THE OSCILLATING RECEIVER—The receiving set was generally based upon the production of a beat or difference frequency, between the currents produced by the incoming wave and radio-frequency currents of slightly different frequency produced by a local oscillator.

RADIO TELEPHONY, SUPER-RECEPTION—We now come to the fifth epoch in radio communication, namely, that in which we are living. It may be characterized as the age of continuous-wave telephony and telephony. While radio telephony had been known long before this, it was only during recent times that it has become widely employed and notably for broadcasting purposes. The transmitters used during this era for broadcasting, and in some cases for telephony, are continuous-wave transmitters generally employing powerful vacuum-tube oscillators in place of the earlier arc or alternator. The receiver is highly selective and depends, in the best instances, for its selectivity on a succession of tuned electrical circuits either operating radio frequency, or as in the superheterodyne system, in part operating at a converted or intermediate frequency. Great sensitiveness is obtainable in these receivers which employ a considerable number of the modern three-electrode vacuum tubes.

During this era, radio communication has become a household necessity in some countries through the advent of broadcasting. The application of radio telephony to marine communication and transoceanic communication between individuals is at hand, but, contrary to some earlier speculation, the radio telephone service of maximum public value has so far turned out to be broadcasting. Indeed, by its very nature, radio telephony is especially well adapted to covering large areas and addressing its message to great bodies of listeners.

COMMERCIAL EPOCHS.
EXPERIMENTAL MANUFACTURE—The first commercial era was that of individual apparatus manufacturing. Small industrial concerns began to make transmitters and receivers, more or less experimentally, and practically always to meet the needs of a particular installation. At most a few sets of a given model would be made for ship or shore stations, and, because of the high rate of obsolescence of equipment; it was not possible to standardize even minor details of the equipment.

SMALL QUANTITY MANUFACTURE;
THE AMATEUR—The second commercial epoch was one which may be termed that of the manufacture of small groups of sets, with the increasing development of commercial radio communication, particularly in the marine field, and with the advent of considerable numbers of radio amateurs.

As shipping companies came to realize the advantages of radio communication they began to equip their fleets with radio sets on a large scale. Military departments of Governments also became fully aware of the military significance of radio communication and consequently purchased increasing numbers of specially designed sets. The radio amateur also developed, though mainly in component form, rather than as assembled sets. The resulting market for radio equipment enabled a number of manufacturers, including certain electrical concerns, to place on the market equipment which had been built in moderate quantities. The rate of obsolescence and the variable nature of the market were still such as to prevent standardization or the application of modern large-scale production methods to radio manufacture. The sale of radio equipment was also conducted through a distribution system of small proportions. Otherwise stated, the purchaser had to locate the market, and sometimes with some difficulty.

LARGE-SCALE PRODUCTION; ONE MILLION DOLLARS PER DAY—And during the last few years suddenly the picture changed. We come to the third and present commercial era of radio, namely, that of large-scale production. With the advent of broadcasting, the market for radio equipment increased to a hitherto unimaginable magnitude. The production of suitable equipment, and particularly of receiving sets, rose to huge proportions. The larger radio and electrical manufacturing concerns applied the most modern and effective methods of large-scale production. In their factories, the testing and standardization of some part, improvement in the quality and reliability of the product, and a reduction in the cost of its manufacture. Vacuum tubes, hitherto almost a laboratory product, are now produced by the millions in lamp factories. In the United States, the radio sales business has risen to a million dollars per day.

RADIO PROGRAMS OF PRINCIPAL STATIONS

CFCA—TORONTO, CAN.
(400 METERS)

(Eastern Time.)

SUNDAY, JAN. 25.
7:00 p. m.—Service of Walmer Road
Baptist Church.TUESDAY, JAN. 27.
9:00 p. m.—One hour of dance music by
the "Night Hawks" dance orchestra.WEDNESDAY, JAN. 28.
8:30 p. m.—A three-act play, "The Ara-
bian Nights."THURSDAY, JAN. 29.
8:30 p. m.—The "National Chorus" from
Masey Hall, Toronto.CHNC—TORONTO, CAN.
(350 METERS)

(Eastern Time.)

SATURDAY, JAN. 31.
7:30 p. m.—Inaugural program. Instru-
mental Quintet: Arthur M. Vander-
voort; baritone: Lawrence DeFoe,
tenor: Hazel Hall-Vandervoort; so-
prano.5:30 to 11 p. m.—Popular and dances
program, Charley E. Bodley and his
orchestra.CKAC—MONTREAL, CAN.
(425 METERS)

(Eastern Time.)

SUNDAY, JAN. 25.
4:30 p. m.—"Three Rivers P. Q. Band" com-
peting for the silver cup offered by
CKAC to most popular amateur band
in the Province of Quebec. Talk by
Mayor of Three Rivers.TUESDAY, JAN. 27.
7:00 p. m.—Windsor Hotel Concert En-
semble.

8:30 p. m.—Le Prese Studio program.

10:30 p. m.—Harold Leonard's Red
Jackets, from the Windsor Hotel grill
room.THURSDAY, JAN. 29.
8:30 p. m.—Special entertainment from
Frontenac Breweries studio.SATURDAY, JAN. 31.
8:30 p. m.—Studio variety program.
Hockey reports.10:30 p. m.—Windsor Hotel Dance Or-
chestra.DKKA—E. PITTSBURG, PA.
(309 METERS)

(Eastern Time.)

SUNDAY, JAN. 25.
4:45 p. m.—Vesper services of the Shady-
side Presbyterian Church.6:15 p. m.—Dinner concert from the
Pittsburgh Athletic Association.7:45 p. m.—Services of the East End
Christian Church.MONDAY, JAN. 26.
6:15 p. m.—Concert by the DDKA Little
Symphony Orchestra.8:30 p. m.—Concert by the DDKA Little
Symphony Orchestra and Mildred Mur-
ray Gardner, soprano.TUESDAY, JAN. 27.
6:15 p. m.—Dinner concert.8:30 p. m.—Concert given under the
auspices of the United States Mercede-
sille Orchestra and KDKA radio stars.10:00 p. m.—Basketball scores at the
end of each quarter of the game being
played between the University of Pitts-
burgh and Grove City College at Pitts-
burgh.WEDNESDAY, JAN. 28.
6:15 p. m.—Dinner concert from the
Pittsburgh Athletic Association.8:15 p. m.—"Petroleum," by Dr. W. F.
Faragher.8:30 p. m.—Program given by Knights
of Columbus Allegheny Council.THURSDAY, JAN. 29.
6:15 p. m.—Dinner concert by the KDKA

Little Symphony Orchestra.

8:30 p. m.—Spanish program, given by
the KDKA Little Symphony Orchestra and
Leora Sage McKenna, soprano.11:00 p. m.—Old-fashioned barn dance,
from the National Stockman and
Farmer studio.FRIDAY, JAN. 30.
6:15 p. m.—Concert by the Westinghouse

Band.

8:30 p. m.—Concert by the Westinghouse

Band.

10:00 p. m.—Hockey scores from the Du-
quesne Gardens game played between the
Pittsburgh Hornets vs. Boston Ma-
pies.SATURDAY, JAN. 31.
6:00 p. m.—Dinner concert by Charlie

Gaylord's orchestra, from the Fort

Pitt Hotel.

8:30 p. m.—Banquet of the Westinghouse

Veterans' Association.

KFI—LOS ANGELES, CAL.
(469 METERS)

(Pacific Time.)

SUNDAY, JAN. 25.
9:00 p. m.—Cinderella Ballroom Orches-
tra of Long Beach.MONDAY, JAN. 27.
10:00 p. m.—Ray West and his Alexan-
der Hotel Orchestra.TUESDAY, JAN. 27.
9:00 p. m.—Literary program presentedby the Women's Press Club of South-
ern California.CFCA—TORONTO, CAN.
(400 METERS)

(Eastern Time.)

SUNDAY, JAN. 25.
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8:30 p. m.—Cinderella Ballroom Orches-
tra of Long Beach.MONDAY, JAN. 27.
10:00 p. m.—Ray West and his Alexan-
der Hotel Orchestra.TUESDAY, JAN. 27.
9:00 p. m.—Literary program presentedby the Women's Press Club of South-
ern California.CHNC—TORONTO, CAN.
(350 METERS)

(Eastern Time.)

SUNDAY, JAN. 25.
9:00 p. m.—Service of Walmer Road
Baptist Church.TUESDAY, JAN. 27.
9:00 p. m.—One hour of dance music by
the "Night Hawks" dance orchestra.WEDNESDAY, JAN. 28.
8:30 p. m.—A three-act play, "The Ara-
bian Nights."THURSDAY, JAN. 29.
8:30 p. m.—The "National Chorus" from
Masey Hall, Toronto.

STATIONS

WEDNESDAY, JAN. 28.
p. m.—Popular songs program.
THURSDAY, JAN. 29.
p. m.—Classical program presented by the Zoellner Conservatory of Music.

FRIDAY, JAN. 30.

p. m.—Vi Dodd's Brundtstatter Singers.

SATURDAY, JAN. 31.
p. m.—Program presented by the Chamber of Commerce of Placentia.FOA—SEATTLE, WASH.
(455 METERS)

(Pacific Time.)

MONDAY, JAN. 28.
p. m.—Remote control from Metropolitan Theater annual Robert Burns University concert, featuring Scottish songs and a full bagpipe band.TUESDAY, JAN. 29.
p. m.—Artist recital by Miss Carson Frye.WEDNESDAY, JAN. 28.
p. m.—Recital by pupils of Paul Ferre McNeely.

FRIDAY, JAN. 30.

p. m.—Remote control from campus of Washington Glee Club in their annual return concert.

SATURDAY, JAN. 31.
p. m.—U. S. S. Nevada Orchestra—The Navy Jazz Hounds."J—LOS ANGELES, CAL.
(395 METERS)

(Pacific Time.)

SUNDAY, JAN. 25.
p. m.—Organ recital from First Methodist Episcopal Church.

p. m.—Program, arranged by J. Edward Johnson.

MONDAY, JAN. 26.
p. m.—Program presenting Charlie Bellman and his KJH Frolic.

TUESDAY, JAN. 27.

p. m.—Program through the courtesy of Listenwalters and Gough.

p. m.—Broadcasting Earl Burtett's Dance Orchestra from Billmores Hotel.

WEDNESDAY, JAN. 28.

p. m.—Program through the courtesy of Pacific Mutual Life Insurance Co.

p. m.—Program presenting Valentine Trio.

p. m.—Broadcasting Earl Burtett's Dance Orchestra from Billmores Hotel.

THURSDAY, JAN. 29.
p. m.—Talk on "Art" by Harold Swartz of Otis Art Institute. "Care of the Body" talk by Dr. Philip M. Lorill. Program through the courtesy of Beth Woodruff Nordwall.

p. m.—Broadcasting Earl Burtett's Dance Orchestra from Billmores Hotel.

FRIDAY, JAN. 30.
p. m.—Program, arranged by G. Aliso Phelps.

p. m.—Broadcasting Earl Burtett's Dance Orchestra from Billmores Hotel.

SATURDAY, JAN. 31.
p. m.—Program, arranged by J. Edward Johnson.

p. m.—Broadcasting Earl Burtett's Dance Orchestra from Billmores Hotel.

12 to 2 p. m.—Broadcasting the Lost Angels of KJH. Presenting Majestic Six Orchestra. Ensemble of KJH artists.

KOA—DENVER, CO.
(323 METERS)

(Mountain Time.)

SUNDAY, JAN. 25.
p. m.—Service of the First Church of Christ, Scientist.MONDAY, JAN. 26.
p. m.—Studio program, Scottish program in honor of Robert Burns, Jan. 25, 1759.WEDNESDAY, JAN. 28.
p. m.—Studio program. Variety program, sprinkled with vocal and instrumental numbers, in addition to a one-act comedy on "Modestus" and short addresses by D. E. Phillips on "The Future of Civilization," and by Clarke Mitchell on "Does Your Banker Know You?"FRIDAY, JAN. 30.
p. m.—Studio program, "The Romantic Age," three-act play presented by newly organized KOA players under the direction of Iris Ruth Ravey, music by KOA orchestra.SATURDAY, JAN. 31.
p. m. to midnight—Dance music program by Joe Mann and his Rainbow-Lane Orchestra, Shirley-Savoy Hotel.

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TO BE BROADCAST THIS COMING WEEK

LOCAL BROADCASTING NEXT WEEK

K S D—549.1 METERS.

(Central Standard Time.)

SUNDAY, JAN. 25.
8:30 p. m.—Sunday night de Luxe concert by the New Arlington-Meyer Davis 10-piece orchestra.

MONDAY, JAN. 26.
8:30 p. m.—Concert by Arkansas talent.

10:30 p. m.—Dance frolic by Fisher's Eastman Hotel Orchestra.

TUESDAY, JAN. 27.
8:30 p. m.—Concert music by Fisher's Eastman Hotel Orchestra.

WEDNESDAY, JAN. 28.
8:30 p. m.—Concert by the Meyer Davis Orchestra.

FRIDAY, JAN. 30.
8:30 p. m.—Concert arranged by Mrs. Jack Manier, violinist, of Hot Springs, with assisting artists.

SATURDAY, JAN. 31.
8:30 p. m.—Concert by the McCafferty sextet and other artists.

10:30 p. m.—Dance frolic by the New Arlington-Meyer Davis Orchestra.

KYW—CHICAGO, ILL.
(532.9 METERS)

(Central Time.)

SUNDAY, JAN. 25.
7:00 p. m.—Studio concert.

7:00 p. m.—Chicago Sunday Evening Club.

TUESDAY, JAN. 27.
7:00 p. m.—Dinner concert broadcast from the Congress Hotel.

8:00 p. m.—Musical program. Stella Wenn, soprano; Irving P. Schuster, tenor; Ned Santry, tenor; W. E. Hunter, bag piper. Speeches under the auspices of the American Farm Bureau Federation.

10 p. m.—"Evening at Home" program.

WEDNESDAY, JAN. 28.
7:00 p. m.—Dinner concert broadcast from the Congress Hotel.

8:00 p. m.—Musical program; Ann Kelley, soprano; James Murray, tenor; Eleanor Tappell, pianist.

8:45 to 2:30 a. m.—Midnight revue.

THURSDAY, JAN. 29.
7:00 p. m.—Dinner concert broadcast from the Congress Hotel.

8:20 p. m.—Musical program.

10 p. m.—"Evening at Home" program.

FRIDAY, JAN. 30.
7:00 p. m.—Dinner concert broadcast from the Congress Hotel.

8:00 p. m.—Speeches under the auspices of the American Farm Bureau Federation.

9:00 to 10 p. m.—Midnight revue.

11 to 2:30 a. m.—Midnight revue continued.

SATURDAY, JAN. 31.
7:00 p. m.—Dinner concert broadcast from the Congress Hotel.

8:00 p. m.—Musical program. Program this evening will be furnished by the following artists: Ann H. Swanson, contralto; Oscar Heather, tenor; Indiana Male Quartet, tenor.

8:12 p. m.—"Congress Classics."

12 p. m.—"Congress Carnival," the Congress Hotel.

PWX—HAVANA, CUBA
(400 METERS)

(Eastern Time.)

WEDNESDAY, JAN. 28.
Concert at the Malecon Band stand, by the General Staff Band of the Cuban Army, Capt. Jose Mollina Torres, band leader.

SATURDAY, JAN. 31.
Concert at the studio of Station PWX, by the orchestra of Prof. Antonio M. Romeo, with a program of dancing music.

WBCN—CHICAGO, ILL.
(266 METERS)

(Central Time.)

SUNDAY, JAN. 25.
1:00 p. m.—Faith Lutheran Church musical program.

1:40 p. m.—Popular program: Wally Johnson, ukulele entertainer; Midway Dancing Gardens orchestra; Bobby Mehr, blues singer; Borden Brothers, vocal duo; Ned Santry, tenor; Merlin "Big Boy" Yash, pianist.

TUESDAY, JAN. 27.
7:00 p. m.—Popular program: Midway Dancing Gardens Orchestra; Finney Briggs, extracts from his column, the "Crazy Quilt"; F. H. McDonald, president of the Broadcast Listeners' Association, radio talk; Ann Williams, soprano; Al Phillips, tenor; George Forsyth, boy tenor; Ned Santry, tenor; Alvin Fry, tenor; Famous Four, mixed quartet; others to be added.

12:00-1:30 p. m.—Pirate Ship.

WEDNESDAY, JAN. 28.
1:40 p. m.—Amber Furniture Co. popular program; Southtown Harmonizers, vocal trio; Marie Delker, reader; Midway Dancing Gardens Orchestra; Monarch Quartet, vocal; Florence Tenney, blues singer.

3:00 p. m.—Englewood Overland Co. popular program; Midway Dancing Gardens Orchestra.

1:40 p. m.—Fireside hour.

7:00-8:30 p. m.—Fireside hour.

8:00-12 p. m.—Popular program: Midway Dancing Gardens Orchestra; George Forsyth, tenor; Southtown Harmonizers, vocal trio; Triangle Trio, instrumental-vocal; Will Dillon, tenor; Englewood String Quintet; Les Cameron, tenor.

Page Eleven.

LOCAL BROADCASTING NEXT WEEK

K S D—549.1 METERS.

(Central Standard Time.)

MONDAY, JAN. 26. 7:00 P. M.—Music and specialties direct from Grand Central Theater.

9:00 P. M.—Studio recital by Francis MacMillan, famous American violinist, assisted by Mrs. Eddie Breslauer, at the piano. This is the first complete recital ever given in a radio studio by a world-famous artist.

TUESDAY, JAN. 27. 7:00 P. M.—Concert by Benjamin Rader's Orchestra.

9:00 P. M.—Studio recital by Mrs. J. E. Stoker, soprano; Mrs. M. H. Bronaug, pianist. John Tiedeman, baritone; Mrs. H. L. Ewald, accompanist. Address: J. S. Laurie.

WEDNESDAY, JAN. 28. 7:00 P. M.—Abergh's Concert Ensemble direct from Hotel Statler.

Jefferson Hotel.

THURSDAY, JAN. 29. 7:00 P. M.—The Home Hour.

FRIDAY, JAN. 30. 8:00 P. M.—Program by Central Wesleyan College Band and Glee Club.

SATURDAY, JAN. 31. 8:00 P. M.—City Club Glee Club and Orchestra direct from City Club.

W C K—273 METERS

(Central Standard Time.)

MONDAY, JAN. 26. Noon—Last minute news items and railroad stock report.

Port. Popular songs and request numbers by Herbert Koch, pianist. Popular songs by Helen Hawkins.

Tuesday, JAN. 27. Noon—Last minute news items and railroad stock report.

Port. Popular songs by Edna Baisch, piano selections, R. E. Miller.

7:30 P. M.—Sandman Club program; stories by Ruth Overman. Songs by Blanche Rowan, age 11 years. Readings by Adele Isenberg.

Wednesday, JAN. 28. Noon—Last minute news items and railroad stock report.

Port. Popular songs by Edna Baisch, piano selections, R. E. Miller.

7:30 P. M.—Gene Rodemich's Orchestra from the Hotel Statler. During intermissions numbers will be given from WCK studio by Johnnie Maher, tenor. Musical numbers by the Midnight Serenaders, accordion, piano, kazoo and ukulele.

THURSDAY, JAN. 29. 7:00 P. M.—Dinner program by Varsity Club Orchestra direct from Hotel Lenox.

Jefferson Hotel.

FRIDAY, JAN. 30. 7:00 P. M.—The Home Hour.

SATURDAY, JAN. 31. 8:00 P. M.—Program by Central Wesleyan College Band and Glee Club.

WEDNESDAY, JAN. 28. 7:00 P. M.—Hotel Brunswick Orchestra.

Jefferson Hotel.

THURSDAY, JAN. 29. 7:00 P. M.—Dinner concert by the Westinghouse Philharmonic Trio.

8:00 P. M.—Mrs. Lucy Jewett, soprano, accompanied by Ruth Kempton.

8:15 P. M.—Talk by Robert Lincoln O'Brien.

8:30 P. M.—Willard Clark, baritone; Benjamin Buxton, accompanist.

8:45 P. M.—Program arranged by DeLancey Cleveland.

9:15 P. M.—Mr. A. E. Vining, harmonica player.

9:30 P. M.—Continuation of DeLancey Cleveland program, presenting saxophonists, violinists and baritone.

10:05 P. M.—Sid Reinherz and orchestra.

WEDNESDAY, JAN. 28. 7:00 P. M.—Leo Reisman's Hotel Lenox Ensemble.

7:00 P. M.—Grace Loomis Kempton, soprano, accompanied by Ruth Kempton.

8:00 P. M.—Talk by Robert Lincoln O'Brien.

8:30 P. M.—Willard Clark, baritone; Benjamin Buxton, accompanist.

8:45 P. M.—Program arranged by DeLancey Cleveland.

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8:00 P. M.—Mrs. Lucy Jewett, soprano, accompanied by Ruth Kempton.

8:15 P. M.—Widsworth Band.

8:30 P. M.—Leslie B. Mason, tenor.

9:00 P. M.—Mcnelly's Singing Orchestra.

9:30 P. M.—Joan Stuart, entertainer.

9:45 P. M.—Westinghouse Philharmonic Trio.

10:00 P. M.—Hotel Brunswick Orchestra.

11:30 P. M.—Popular song cycle, by the Don Ramsay Four.

SATURDAY, JAN. 31. 7:00 P. M.—Leo Reisman's Hotel Lenox Ensemble.

7:15 P. M.—Sketches from United States naval history, by E. S. R. Brandt.

7:30 P. M.—Concert by the Hotel Gimbals Trio, direct from the Hotel Gimbal dining room.

8:00 P. M.—Broadcast, direct from the Boston arena, of the B. A. A. track and field games.

W CBD—ZION CITY, ILL.
(345 METERS)

(Central Time.)

SUNDAY, JAN. 25. 8:00 P. M.—Program given by the Male Chorus and the Hile Trio, assisted by the following performers: Messrs. Rendall Perelman, Dryer and Hendricks, Clarinet Quartet; Mr. George Brown, marimba; Carey Sisters, vocal duet; Mrs. J. D. Thomas, soprano; Miss Edith Caley, contralto; Mrs. Marion Moulton Priddy, piano; Mrs. John A. Marshall, reader.

MONDAY, JAN. 26. 8:00 P. M.—Program given by the McElroy Saxophone Quintet, assisted by the following performers: Messrs. McElroy, Rendall, Sack and McElroy, celestia; bells; Misses Esther Wiedman and Pearl Ludlow and Mrs. Evelyn Depew, vocal trio; Mrs. Evelyn Ulrich Depew, contralto; Mr. E. B. Paxton, baritone; Mr. Hermann Becker, cello; Mr. Richard F. Hile, piano; Mrs. Edna Huston Paxton, reader.

TUESDAY, JAN. 27. 8:00 P. M.—Program given by the Mixed Quartet, assisted by the following performers: Miss Hollingshead, Mrs. Hile and Mrs. Ruth, flute, viola and harp; Mrs. Carl Hile, harp, Miss Hollingshead, flute; Mrs. L. J. Hile, violin; Mr. Daniel Mason, trombone; Mr. and Mrs. R. M. Steed, tenor and soprano; Mr. Joseph Bishop, baritone; Mrs. S. D. Imman, soprano; Miss Dorothy Schad, piano; Mrs. Hilda Klammer, reader.

WCCO—MINNEAPOLIS, MINN. (417 METERS)

(Central Time.)

SUNDAY, JAN. 25. 7:20 P. M.—Second Church of Christ, Scientist, Minneapolis.

9:15 P. M.—Classical concert.

MONDAY, JAN. 26. 8:00 P. M.—Third Infantry Band, Carl Dillon, leader. Travlogue on Japan, Korea and Manchuria, Capt. Raymond C. Wolfe.

10:00 P. M.—Dance program, Dick Long's Nanking Cafe' Orchestra; Lou Emmel, baritone.

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RADIO PROGRAMS FOR THE WEEK—Continued

TUESDAY, JAN. 27.
6:30 p. m.—Dinner concert, Biley's Concert Orchestra.

WEDNESDAY, JAN. 28.
7:00 p. m.—Midweek church service, Salvation Army, Col. W. S. Barker.
9:00 p. m.—Musical program.

10:00 p. m.—Dance program, Arnold Frank's Casino Orchestra, St. Paul Hotel.

THURSDAY, JAN. 29.
8:15 p. m.—Musical program.

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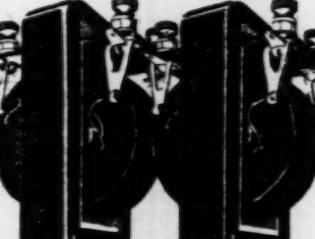
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10:30 p. m.—Dance program, Dick Long's Nankin Cafe Orchestra.

FRIDAY, JAN. 29.

6:30 p. m.—Dinner concert, Dick Long's Nankin Cafe Orchestra.

7:30 p. m.—"Braindead Night."

SATURDAY, JAN. 31.

8:00 p. m.—"Fireside Philosophies," Rev. Roy L. Smith, pastor Simpson M. E. Church, Minneapolis.

8:15 p. m.—Opening of Twin City Automobile show and trade week.

WDAF—KANSAS CITY, MO.
(411 METERS)

(Central Time)

SUNDAY, JAN. 25.

4:00 to 5:00 p. m.—Classical music by the Star's Radio Orchestra.

MONDAY, JAN. 26.

8:00 to 9:15 p. m.—Program by the Ivanhoe Band, directed by Walter A. French, and the Ivanhoe Glee Club.

8:45 p. m.—"The Plantation Players," Hotel Muehlebach.

TUESDAY, JAN. 27.

11:45 p. m. to 1 a. m.—The Plantation Players.

WEDNESDAY, JAN. 28.

8:00 to 9:15 p. m.—Program given by Montgomery Ward & Co.

THURSDAY, JAN. 29.

11:45 p. m. to 1 a. m.—The Plantation Players.

FRIDAY, JAN. 30.

8:00 to 10:00 p. m.—Popular program.

11:45 p. m. to 1 a. m.—The Plantation Players.

SATURDAY, JAN. 31.

6:00 to 7:00 p. m.—Music, Trianon Ensemble, Hotel Muehlebach.

WEAF—NEW YORK, N. Y.
(492 METERS)

(Eastern Time)

SUNDAY, JAN. 25.

7:00 p. m.—Musical program by Royce and His Gang direct from the Capitol Theater.

9:15 p. m.—Organ recital direct from the chapel at Columbia University.

MONDAY, JAN. 26.

6:00-11:30 p. m.—Dinner music from the Rose Room of the Hotel Waldorf-Astoria; Gustav Langenus, clarinet; musical program direct from the Mark Strand Theater; Raisch Quartet; Inauguration speech of Dr. Kopetzky direct from the Academy of Music; music by the A and P Gypsies. Talk by Capt. Gordon Gordon-Smith on Foreign Affairs; Ben Bernie and His Orchestra direct from the Hotel Roosevelt grill.

TUESDAY, JAN. 27.

6:00-11:30 p. m.—Dinner music from the Rose Room of the Hotel Waldorf-Astoria; Gustav Langenus, clarinet; musical program direct from the Mark Strand Theater; Raisch Quartet; Inauguration speech of Dr. Kopetzky direct from the Academy of Music; music by the A and P Gypsies. Talk by Capt. Gordon Gordon-Smith on Foreign Affairs; Ben Bernie and His Orchestra direct from the Hotel Roosevelt grill.

WEDNESDAY, JAN. 28.

6:00-12 p. m.—Dinner music from the Rose Room of the Hotel Waldorf-Astoria; midweek services under the auspices of the Greater New York Federation of Churches; Columbia University lecture on Carnegie Hall; Irwin Hassell, pianist; Victor presentation of famous artists; Silverton Cord Orchestra under the direction of Joseph Knecht; Vincent Lopez and His Orchestra from Hotel Pennsylvania, New York City.

FRIDAY, JAN. 30.

6:00-12 p. m.—Dinner music from the Rose Room of the Hotel Waldorf-Astoria; Mount Royal Orchestra under the direction of Phil Paolucci; Happiness Candy Boys; Hohner Harmony Hour; Florence Burns, contralto; Big Ten Dinner of the Western College Conference direct from Hotel Astor; Meyer Davis Lido-Venice Orchestra direct from Lido-Venice Restaurant.

SATURDAY, JAN. 31.

6:00-12 p. m.—Dinner music from the Rose Room of the Hotel Waldorf-Astoria; Madge Kennedy, saxe and screen star in singing section; Phillips Steele, baritone; Concert by Sophie Irene Loeb, / Concert by the Waldorf-Astoria Orchestra direct from the lobby of the hotel; Ida Davenport, coloratura soprano; Vincent Lopez and His Orchestra from the grill of the Hotel Pennsylvania.

SUNDAY, JAN. 25.

1:00 p. m.—Symphony concert by Allen

Theater Orchestra, direct from Allen Theater.

MONDAY, JAN. 26.

7:00 p. m.—Musical program broadcast direct from Loew's State Theater.

TUESDAY, JAN. 27.

7:30 p. m.—Program arranged by the Cleveland News. Vocal solos, duets, mixed quartet and male quartet numbers by members of professional department of the studio of Ralph Everett Sapp. E. G. McMullen, pianist. Violin selections. Five-minute playlet by members of the Thimble Theater Guild. Dance numbers.

WEDNESDAY, JAN. 28.

7:00 p. m.—Dinner concert by Ivan Franciscus and his Hotel Cleveland Orchestra, broadcast direct from the hotel.

THURSDAY, JAN. 29.

7:00 p. m.—Dinner concert by Ivan Franciscus and his Hotel Cleveland Orchestra, broadcast direct from the hotel.

FRIDAY, JAN. 30.

8:30 p. m.—Program by Texan Penwance.

SATURDAY, JAN. 31.

8:30 p. m.—Baylor University Alumni Founder's Day program at the Jefferson Hotel.

WEDNESDAY, JAN. 28.

7:00 p. m.—Dinner concert by Ivan Franciscus and his Hotel Cleveland Orchestra, broadcast direct from the hotel.

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THURSDAY, JAN. 29.

7:00 p. m.—Dinner concert by Ivan Franciscus and his Hotel

RADIO PROGRAMS FOR THE WEEK—Continued

WIP—PHILADELPHIA, PA.
(509.9 METERS)

(Eastern Time.)

8:15 p. m.—The Philadelphia Police Band under the direction of Lieutenant Joseph Kifner, broadcast direct from the police band room.

9:00 p. m.—Concert by the Stetson Chorus from the John B. Stetson Co.

10:30 p. m.—Special dinner music by Harvey Marburger and his vaudeville orchestra, broadcast direct from the Cafe L'Aiglon.

THURSDAY, JAN. 29.
8:15 p. m.—The Delaphaine Minstral Troup.

9:00 p. m.—Violin recital by Jacob Rader, dinner of the Philadelphia Music League prize. Flora Ripka, accompanist.

11:00 p. m.—Dance music by Harvey Marburger and his vaudeville orchestra, broadcast direct from the Cafe L'Aiglon.

SATURDAY, JAN. 31.

8:00 p. m.—America's New Passion Play, "Vision," by Rev. John F. Burns. Presented by the Villanova Players.

10:05 p. m.—Dinner music by Art Coopers and his Club Madrid Orchestra, broadcast direct from the Club Madrid.

11:05 p. m.—Organ recital by Karl Bonawitz, broadcast direct from the Germania Theater.

WLS—CHICAGO, ILL.
(345 METERS)

(Central Time.)

SUNDAY, JAN. 25.

6:30 p. m.—Ralph Emerson.

7:00 p. m.—Musical program by choir of Julia Gay Memorial M. E. Church.

11:15 p. m.—Senate Theater Revue.

MONDAY, JAN. 27.

8:00 p. m.—Evening R. F. D. program.

9:00 p. m.—Florence K. White, soprano; WLS Theater present Anthony Wors in scenes from Shakespeare's "Much Ado About Nothing"; Kenneth Clark, Hawaiian guitar; Art Kahn and his Senate Teacher Syncopators; Myrtle Case in "The Songs of the Bird"; Isham Jones and his College Inn Orchestra; Ford and Glenn; Vaudeville entertainment furnished by Carroll Agency; Ralph Emerson; Isham Jones and his College Inn Orchestra; Ford and Glenn.

TUESDAY, JAN. 27.

8:15 p. m.—The Philadelphia Police

Band under the direction of Lieutenant Joseph Kifner, broadcast direct

from the police band room.

9:00 p. m.—Concert by the Stetson

Chorus from the John B. Stetson Co.

10:30 p. m.—Special dinner music by Harvey Marburger and his vaudeville

orchestra, broadcast direct from the

Cafe L'Aiglon.

WEDNESDAY, JAN. 28.

8:00 p. m.—Evening R. F. D. program.

9:00 p. m.—Jimmy Whelan, Irish tenor.

9:10 p. m.—WLS Theater presents Wallace Bruce Amsbury in Literary Interpretation of Rudyard Kipling: Kipling's Versatility, His Humor, His Patriotism; WLS Four Aces of Harmony; Senate Symphonic Orchestra; Philharmonic quartet; Isham Jones and his College Inn Orchestra; Ford and Glenn.

THURSDAY, JAN. 29.

8:00 p. m.—Ralph Emerson; Senate

Theater Studio; Ford and Glenn's

Woodshed Theater; "Tom Thumb";

WLS Theater presents operetta "The

Isle of Asuwe're."

FRIDAY, JAN. 30.

8:00 p. m.—C. A. Ball, baritone; WLS

Theater presents Radio drama; Martha Bjorn, contralto; Senate Theater Sym-

phony Orchestra; Nuba Allan; Ken-

neth Clark and his Hawaiian guitar;

Isham Jones and his College Inn Or-

chestra; Ford and Glenn.

SATURDAY, JAN. 31.

7:20 p. m.—National Barn Dance with

Isham Jones and his College Inn Or-

chestra.

11:15 p. m.—Senate Theater Revue.

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WLW—CINCINNATI, O.
(423 METERS)

(Central Time.)

SUNDAY, JAN. 25.

7:30 p. m.—Services of the First Presby-

terian Church of Walnut Hills.

8:30 p. m.—Concert by the Western and

Southern Orchestra. Soloist, Joseph

Vito, solo harpist with the Cincinnati

Symphony Orchestra.

MONDAY, JAN. 26.

6:00 p. m.—Dinner hour concert, featur-

ing the Selinsky Instrumental Quintet.

8:00 p. m.—The Times-Star pro-

gram. The Times-Star Orchestra. (Twelve

Symphony Orchestra men directed by

William Kopp.)

TUESDAY, JAN. 27.

10 p. m.—Concert program, featuring the

Cooper Orchestra and Male Quartet.

WMAQ—CHICAGO, ILL.
(447.5 METERS)

(Central Time.)

MONDAY, JAN. 26.

10 p. m.—Concert program, featuring the

Olio Rubber Male Quartet and Instru-

mental Trio of flute, violin and celeste.

6:30 p. m.—Violin recital by Milan Lank.

WMC—MEMPHIS, TEN.
(500 METERS)

(Central Time.)

MONDAY, JAN. 26.

8:30 p. m.—Special organ recital.

TUESDAY, JAN. 27.

8:30 p. m.—Lecture by Edward Ho-

Griffie from the Goodwyn Institu-

11:00 p. m.—Midnight Frolic by B-

hardt's Orchestra.

THURSDAY, JAN. 29.

8:30 p. m.—The Hotel Gayoso Orch-

FRIDAY, JAN. 30.

8:30 p. m.—Prof. Chin Chin and his

Ling's Cafeteria Novelty Orchestra.

11:00 p. m.—Midnight Frolic, to be

announced later.

SATURDAY, JAN. 31.

8:30 p. m.—Program to be annou-

nced later.

WOAI—SAN ANTONIO,
TEXAS (394.5 METERS)

(Central Time.)

MONDAY, JAN. 27.

7:30 p. m.—Services of Central Chr-

Church.

8:30 p. m.—Selections from Rigolet-

Verdi, the WOAI Entertainers. In-

mental music by the WOAI Trio.

TUESDAY, JAN. 27.

8:30 p. m.—Selection from light on-

WOAI Entertainers, the WOAI

and Jimmy's Joys Orchestra.

THURSDAY, JAN. 29.

8:30 p. m.—Jimmy's Joys Dance Op-

era.

WOAW—OMAHA, NEB.
(522.3 METERS)

(Central Time.)

SUNDAY, JAN. 25.

9:00 p. m.—Bible study period.

9:00 p. m.—Musical chapter ser-

First Christian Church.

MONDAY, JAN. 26.

9:00 p. m.—Mozart grand opera pro-

gram.

Handsome<br

Continued

WEDNESDAY, JAN. 28.
6:30 p. m.—Special concert program given by Iota Chapter S. A. I. Sorority from the Cincinnati Conservatory of Music.
6:30 p. m.—Miss Jessica Steinle, mezzo soprano; Miss Edythe Tolken, violin; Miss Beulah Perryman, accompanist.
6:30 p. m.—Concert and entertainment by the Formica Concert Orchestra; Elizabeth Carlisle, soprano; Louise Kasch, piano.

THURSDAY, JAN. 29.
6:30 p. m.—Concert program, featuring the paper Orchestra and Male Quartet.

WMAQ—CHICAGO, ILL. (447.5 METERS)
(Central Time.)
MONDAY, JAN. 26.
6:30 p. m.—Violin recital by Milan Lusk.

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WEEKLY RADIO GUIDE — Section of the St. Louis Post-Dispatch — January 24, 1925. **Page Fifteen.**

RADIO PROGRAMS FOR THE WEEK—Continued

TUESDAY, JAN. 27.
6:30 p. m.—Clara E. Laughlin, travel talk. Association of Commerce weekly talk. University of Chicago, lecture.

WEDNESDAY, JAN. 28.
6:30 p. m.—Piano concert. Artists to be announced.

THURSDAY, JAN. 29.
6:30 p. m.—Talk under the auspices of the Western Railways Committee.

6:30 p. m.—Buy Scout talk.

6:30 p. m.—To be announced.

6:30 p. m.—Lecture from University of Chicago.

6:30 p. m.—Wauhler League program.

FRIDAY, JAN. 30.
6:30 p. m.—Weekly "Wide-Awake" Club program directed by Mrs. Frances M. Ford.

6:30 p. m.—Musical geography, Mr. and Mrs. Marx E. Oberndorfer.

6:30 p. m.—Musical program from Gary, Ind.

SATURDAY, JAN. 31.
6:30 p. m.—LaSalle Hotel Orchestra.

6:30 p. m.—Radio photologue, "World Reporting," by Junius B. Wood.

6:30 p. m.—Weekly Balaban & Katz Chicago Theater review.

WMC—MEMPHIS, TENN. (500 METERS)
(Central Time.)

MONDAY, JAN. 26.
6:30 p. m.—Special organ recital.

TUESDAY, JAN. 27.
6:30 p. m.—Lecture by Edward Howard Griss from the Goodwyn Institute.

11:30 p. m.—Midnight Frolic by Rhinehardt's Orchestra.

THURSDAY, JAN. 29.
6:30 p. m.—The Hotel Gayoso Orchestra.

FRIDAY, JAN. 30.
6:30 p. m.—Prof. Chin Chin and his Bright's Cafeteria Novelty Orchestra.

11:30 p. m.—Midnight Frolic, to be announced later.

SATURDAY, JAN. 31.
6:30 p. m.—Program to be announced later.

WOAI—SAN ANTONIO, TEXAS (394.5 METERS)
(Central Time.)

TUESDAY, JAN. 27.
7:30 p. m.—Services of Central Christian Church.

8:30 p. m.—Selections from Rigoletto, by Verdi, the WOAI Entertainers. Instrumental music by the WOAI Trio.

TUESDAY, JAN. 27.
8:30 p. m.—Selection from light operas, WOAI Entertainers, the WOAI Trio and Jimmy's Joes Orchestra.

THURSDAY, JAN. 29.
8:30 p. m.—Jimmy's Joes Dance Orchestra.

WOS—JEFFERSON CITY, MO. (440.9 METERS)
(Central Time.)

SUNDAY, JAN. 25.
7:30 p. m.—Religious service of the Central Evangelical Church.

MONDAY, JAN. 26.
6:30 p. m.—Bible study period.

6:30 p. m.—Musical chapter service, First Christian Church.

MONDAY, JAN. 26.
8:30 p. m.—Mozart grand opera program

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TUESDAY, JAN. 27.
6:00 p. m.—Program from the studios of Frank Mach, violin, and John G. Jameson, voice.

10:15 p. m.—To be announced.

10:30 p. m.—Frank Hodek and his Omaha Nightingales at Roseland Gardens.

THURSDAY, JAN. 29.
6:45 p. m.—Randall's Royal Orchestra at Hotel Fontainebleau.

10:00 p. m.—To be announced.

10:30 p. m.—Frank Hodek and his Omaha Nightingales at Roseland Gardens.

THURSDAY, JAN. 29.
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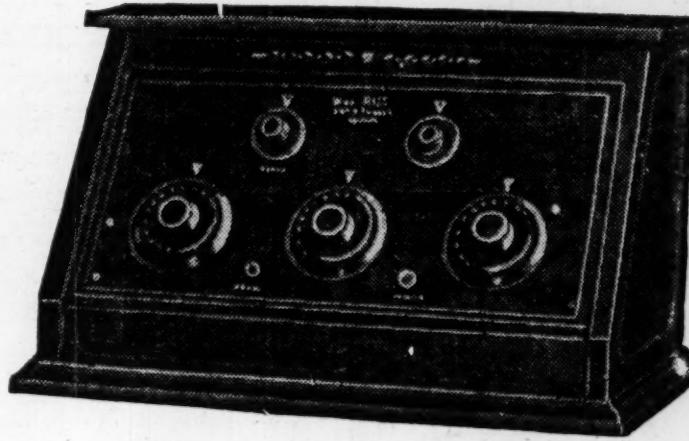
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